Critical thinking skills remain at the forefront of educational discussions. These higher order thinking processes, including but not limited to reflection, inference, and synthesizing information, enable individuals to make reasoned judgments not only in the classroom but in everyday life. School systems demand that critical thinking be incorporated into curricula, and standardized testing increasingly assesses it. However, there remains the question of how English language teachers include the development and practice of these important skills in their lessons. To this end, this article presents a sequence of seven critical thinking tasks, a flexible framework that acts as a practical tool for planning and developing level-appropriate classroom materials that encourage and advance critical thinking. The sequence of tasks, originated by Carol Numrich at Columbia University, guides teachers in scaffolding critical thinking and English language skills so that critical thinking may be practiced at any language proficiency level.

doi: 10.5054/tj.2010.234763

In popular culture, fads and trends come and go. Star celebrities burn bright for a time but then often fade. Fashions, like bell bottoms and shoulder pads, have their day and then return as “retro.” The field of teaching English to speakers of other languages has had its trends: methodologies from grammar translation to audiolingualism, including total physical response, the silent way, and counseling learning, as well as other pedagogical trends such as whole language and sheltered immersion. To some educators, talking about critical thinking skills may also seem like just another fad that has had its day. However, if critical thinking is a fad, it is one that needs to be kept alive and growing.
What may be lacking in the ongoing discussion of critical thinking is a way of translating the skills associated with it into a manageable, flexible, and usable framework or sequence—one that helps teachers introduce and reinforce critical thinking skills in their lessons while also helping students develop their English language proficiency. The sequence of critical thinking tasks outlined in this article, named for its originator, Columbia University’s Carol Numrich, is such a framework.

As the title of this article suggests, Numrich’s sequence is just one sequence rather than the one. In addition to serving as a practical planning tool for teachers, this framework also helps us as teachers become keenly aware of what we ask students to do. Are we asking students the same questions or question types over and over again and, therefore, practicing the same skills? Are we challenging them to think beyond the level of comprehension or personal experience? Are we asking them to base their decisions on emotion or gut instinct, on personal experience, on identifiable facts and reliable evidence, or on some or all of these?

The purpose of having such a sequence is not to prescribe what teachers and students do, but to help us recognize teaching and learning options and to seize opportunities to point students in directions they might not immediately see on their own. The task types in the Numrich sequence also present students with opportunities for communication about real issues that are important to them. This, in turn, may be enjoyable, engaging, and productive, which will help them work toward the ultimate academic goal of being active thinkers as well as active users of English.

WHAT IS CRITICAL THINKING?
Trend or not, critical thinking rightly remains at the forefront of education today. Teachers and students are told of its importance and acknowledge the need for it. Schools and school systems demand that it be incorporated into curricula; teachers integrate critical thinking practice into their lessons (or believe they do); and local, national, and international standardized tests assess it. With so much attention being paid, the irony is that educators lack a concise definition of critical thinking, due in large part to the fact
that critical thinking is not a single entity but an umbrella term that comprises many complex processes.

Scriven and Paul begin to define critical thinking as “the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action” (quoted in Foundation for Critical Thinking, 2009, para. 2). Scriven and Paul put into one carefully crafted sentence these various processes that constitute the core skills most educators would agree are involved in critical thinking. Still, the larger challenge remains to translate these skills into lessons and classroom activities that promote their practice and development.

Bloom (1956) offered one of the first comprehensive elaborations of these important skills. Since the conception of Bloom’s Taxonomy, his colleagues (Anderson & Krathwohl, 2001) have carried on his work and developed a two-dimensional taxonomy for learning, teaching, and assessing student learning outcomes. The Knowledge Dimension identifies four types of knowledge: factual, conceptual, procedural, and metacognitive. The second aspect of Bloom’s Taxonomy, the Cognitive Process Dimension, outlines six ways of thinking (remember, understand, apply, analyze, evaluate, and create) and their many subprocesses. Again, these are among the core processes or skills that are the basis of any discussion of critical thinking.

The primary audience of Bloom’s Taxonomy is teachers, but it also attempts to speak directly to teacher educators, curriculum and assessment specialists, educational policy makers and journalists, and textbook authors and publishers. Its purposes, like its diverse audience, are far-reaching and more ambitious than the Numrich sequence, which takes many of the same concepts and arranges them for the English language teacher to develop lessons that offer scaffolded language and critical thinking skills development.

Clearly, students need critical thinking in their academic life. They need to solve word problems in math class, to conduct scientific inquiry in chemistry, to understand the workings of the human mind in psychology, and to write paragraphs, essays, and
term papers across the curriculum. All of these assignments require them to think critically. Ultimately, however, teachers want students not only to practice these skills in the classroom but to take them out into the world and use them. As Beyer (1995) notes, what critical thinking truly entails is developing the capacity to make reasoned judgments in one’s academic work and in one’s life beyond the classroom.

Critical thinking is certainly important in everyday life. Imagine the considerations involved in buying a car:

- What does the car look like?
- How do I feel when I look at it or drive it?
- What features does it have?
- Can I afford it?
- Is it “green”?
- How does this car compare to that one?
- Should I believe what salespeople and reviewers of this car say?
- Which car will I buy?

This or a similar thought process may result if the individual is to make an informed choice at the car dealership. Students may not ever be in the market for a car; however, teachers want them to make critical thinking part of their daily routine regardless of the context. Formulating and answering these questions requires a range of critical thinking abilities. Thus, one may argue that critical thinking skills have a place in classrooms of all kinds because they afford practice in essential life skills.

For the purposes of this article, critical thinking is defined as the practice and development of an active, conscious, purposeful awareness of what one encounters both in the classroom and in the outside world. It is a kind of thinking and learning that demands an investment in personal and communal learning on the part of the student and teacher. Critical thinking does not discount the emotional or gut responses that everyone has. Rather, it complements and enters into dialogue with them so that reasoned judgments are possible.

**A SEQUENCE OF CRITICAL THINKING TASKS**

Numrich’s sequence (Table 1) is meant to provide useful options for teachers who want to write or adapt classroom materials for English
language learners of all ages and levels of English proficiency. It is not meant to be a formula for teaching language or critical thinking. It is a starting point from which to consider how best to meet students’ needs. This sequence supports student learning and skills development by gradually increasing the challenge of what language and critical thinking skills they employ. As noted earlier, the task types are flexible and at times overlapping. They can be rearranged or eliminated altogether.

Again, an important reason to consider this or any sequence of critical thinking tasks is for teachers to build their awareness of what it is they are asking students to do when they say they are...
teaching or practicing critical thinking. This sequence highlights differences or nuances among various task types and helps teachers check that materials are being carefully scaffolded and, therefore, are appropriate for the learners’ needs. In working with this tool, teachers may notice that their materials heavily favor one task type or level of critical thinking. For example, comparing and contrasting as well as explaining cause and effect may be practiced regularly, whereas other skills, such as summarizing and classifying, may be somewhat neglected. For some teachers, critical thinking tasks might come solely in the form of *wh*– questions (e.g., What caused the woman’s reaction? How are these two characters different?). However, teachers might also discover that what they thought was critical thinking is not at all. Perhaps the most commonplace example is the difference between minimally informed guessing (based on a gut reaction or perhaps nothing at all) and inference (based on thoughtful consideration of evidence). The Numrich sequence allows this distinction to be drawn easily.

Numrich’s sequence of critical thinking tasks contains seven task types, which can be grouped into three categories: those typically done before presenting the main text, those done while focusing on the text, and those done after focusing on the main text. Here, the term *text* refers to the main resource in a lesson or unit. A text may be a reading (a novel, a page from a history book, a poem), a listening (a radio interview, a song), an image (a scenic painting, a photo), or multimedia (a film clip, a TV news report). A text can be any piece of interest to students and teacher alike that is suitable as a stimulus for both language learning and critical thinking.

In order to explore and apply Numrich’s sequence to the language classroom, this article uses Sandra Cisneros’s (1991) classic work *The House on Mango Street* as a primary text.

In the book, a young girl named Esperanza recounts how for years her family has been moving from one run-down apartment to another, her parents always dreaming of one day having a comfortable home in which their family might settle. Esperanza recalls:

> They always told us that one day we would move into a house, a real house that would be ours for always so we wouldn’t have to move each year. And our house would have running water and
pipes that worked. And inside it would have real stairs, not hallway stairs, but stairs inside like the houses on TV. And we’d have a basement and at least three washrooms so when we took a bath we wouldn’t have to tell everybody. Our house would be white with trees around it, a great big yard and grass growing without a fence. This was the house Papa talked about when he held a lottery ticket and this was the house Mama dreamed up in the stories she told us before we went to bed. (Cisneros, 1991, p. 4)

A pivotal moment comes for Esperanza as a result of an upsetting encounter with a nun, who reacted to the condition of a house her family had lived in:

Once when we lived on Loomis, a nun from my school passed by and saw me playing out front. The laundromat downstairs had been boarded up because it had been robbed two days before and the owner had painted on the wood YES WE’RE OPEN so as not to lose business.

Where do you live? she asked.
There, I said pointing up to the third floor.
You live there?

There. I had to look to where she pointed—the third floor, the paint peeling, wooden bars Papa nailed on the windows so we wouldn’t fall out. You live there? The way she said it made me feel like nothing. There. I lived there. I nodded. (Cisneros, 1991, pp. 4–5)

Now living with her family on Mango Street, Esperanza recalls that interaction:

I knew then that I had to have a house. A real house. One that I could point to. But this isn’t it. The house on Mango Street isn’t it. For the time being, Mama says. Temporary, says Papa. But I know how things go. (Cisneros, 1991, p. 5)

_The House on Mango Street_ has universal themes that engage learners of most levels and backgrounds. It may also be a story that teachers are familiar with and, therefore, it may be useful in this discussion of critical thinking tasks. However, for the purpose of presenting a clear example, let us also assume that we are using the story with a class of high-beginner to low-intermediate English language learners.
OBSERVING

Observing is the basic starting point of the sequence—so basic, in fact, that some teachers may not immediately consider it to be critical thinking at all. However, observing is critical thinking because it involves a fundamental level of analysis. This task type is a pre-text activity that simply asks students to look at or listen to a stimulus related to the main text and to identify, or name, what they see or hear. The skills involved in observing are looking, listening, noticing, and naming.

This type of task is important for a number of reasons. First, it brings to the fore the lexical items (vocabulary) and language structures (grammar) needed for students to explore the topic actively in English. Second, conceptually, students are introduced to the topic and have a chance to discover what they know about the topic. From here, they will be better able to set out to learn more. Thus, observing is part of activating students’ prior knowledge in terms of both language and content. This task type also begins to level the playing field for students in a classroom where there may be disparate backgrounds in terms of knowledge of the topic at hand. Laying this foundation will make later, higher order language and critical thinking tasks more viable and potentially more fruitful because there will be a baseline for both language and content.

Observing activities to consider before reading *The House on Mango Street* might include those listed in Table 2.

Table 2 offers three possible observing tasks along with language foci that might be treated with the tasks. The language focus might be a grammatical structure (there is/are) or a language function (description). The ultimate choice of activity would depend on the ultimate goal or final product of the lesson. Imagine that we are working on a unit about home repair or trying to solve a

<table>
<thead>
<tr>
<th>Prompt</th>
<th>Language Focus</th>
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</thead>
<tbody>
<tr>
<td>1. Look at the picture(s) of an apartment. What do you see?</td>
<td><em>There is/are</em></td>
</tr>
<tr>
<td>2. Look at the three different homes in the pictures. What do you see?</td>
<td><em>Has/have</em></td>
</tr>
<tr>
<td>3. Draw a picture of the place you live or your favorite room there.</td>
<td>Nouns and adjectives</td>
</tr>
<tr>
<td>Describe it.</td>
<td></td>
</tr>
</tbody>
</table>

TABLE 2. Observing Tasks
practical problem in a home. The apartment or house seen in the first observing task would have some of the problems that are mentioned in *The House on Mango Street*, such as leaky pipes. We can generate a list of the people, things, and actions associated with the picture. We can then continue our list by naming and describing, in a very basic way, some of the other problems that might happen in an apartment or home (e.g., peeling paint).

Our treatment of this story might also lead to a descriptive paragraph about the “dream” home (or room) each of us would like to have. The second prompt in Table 2 might be more suitable to set the stage for this goal. Note that students are not asked to compare and contrast the homes in the images, although they may do so spontaneously. They are being asked to simply look at a range of images in order to generate a wider range of lexical items, language structures, and conceptual information. The evaluation of the three homes is part of the next task type, identifying assumptions. Strictly speaking, observing does not involve opinions, personal anecdotes, or reactions. Teachers may welcome them if they occur, but at the same time they should recognize how these evaluative interjections and ways of thinking are different from observing.

The third option in Table 2 could be the beginning of a unit that might also lead to a description of a dream home or room. This approach calls on students’ creative skills from the start of the unit. The flexibility of the assignment (to describe the home, a room, or even a favorite part of the home) allows students some freedom to select what they are comfortable sharing.

Observing focuses on the students’ world. It begins to draw out their prior knowledge on the topic while providing them with the language resources to be better prepared for the main text and to go deeper. This task type, along with the next, gives students a secure, potentially rich linguistic and conceptual platform from which to begin their exploration of the topic. They have begun to integrate prior knowledge with new concepts and are equipped to move ahead as a result.

**IDENTIFYING ASSUMPTIONS**

As with observing, identifying assumptions happens before students encounter the main text. It also focuses on the students’
own realms of experience. The difference is that students now react to what they see or hear. At this early stage of the unit, identifying assumptions is a chance for students to share their backgrounds (e.g., Have you ever visited a big city?), express opinions (e.g., Why do you think people move out of big cities?), and clarify their current thinking or values on the topic (e.g., What are the challenges of raising a family in a big city?). Ideally, the lesson or unit will later prompt students to return to these ideas and ask them to update their thinking about the topic as they discover more.

There are many opportunities to work on identifying assumptions in *The House on Mango Street*, a few of which are listed in Table 3.

The prompts in Table 3 ask for a reaction. The first item asks students to look again at the picture or pictures they may have seen during the observing task and to express opinions about what they see (not just describe it). The other items allow students to share their ideas and provide opportunities for the teacher to build on the lexical and linguistic instruction begun in observing.

Observing and identifying assumptions may certainly be treated as the same step if time or other factors make it necessary. However, before lumping them together, it is important to consider their individual merits. Taken independently, these two task types allow for more exposure to the target language and more opportunities to use it actively. Repeated, meaningful exposure and use are key to language development.

Having approached the topic by first observing and identifying assumptions, learners now have the necessary linguistic and

<table>
<thead>
<tr>
<th>Prompt</th>
<th>Language Focus</th>
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<tbody>
<tr>
<td>1. Look at the homes in the pictures. Which house would you like to live in? Why?</td>
<td></td>
</tr>
<tr>
<td>2. How many streets have you lived on? Which was your favorite? Why?</td>
<td></td>
</tr>
<tr>
<td>3. What do you know about moving? [or] Have you ever moved? What was it like?</td>
<td></td>
</tr>
<tr>
<td>4. Which is better: a house or an apartment? Why?</td>
<td></td>
</tr>
</tbody>
</table>

Expressing likes and dislikes |
Describing a place |
Describing a process |
Using simple past |
Giving reasons with *because*
conceptual foundation to engage with the main text. The next task type, understanding and organizing, will enable them to focus on the literal level of the text and to see relationships among the language and ideas therein.

UNDERSTANDING AND ORGANIZING
Understanding and organizing takes the focus away from the students’ world and shifts it onto the text. It is here that students read a passage, listen to an interview, or look at an image and demonstrate their comprehension. Although some teachers might argue that focusing on literal levels of the text is not critical thinking per se, I argue that being able to understand and manage content is fundamental to the practice and development of critical thinking skills. They are inextricably linked.

As noted earlier, tasks related to observing and identifying assumptions help to lay out a linguistic and conceptual foundation for students before they encounter the main text. There may be a few gaps in what the teacher wants to present (e.g., low-frequency lexical items in the main text), but students should now be ready to focus on the main text.

When understanding and organizing, students are first asked to identify main ideas and details. These types of responses are pulled literally from the text. Here, students can also take what they have read, heard, or seen in the text and put information in order (e.g., complete a strip story), classify or categorize information (e.g., separate words into city and country terms), and compare and contrast (e.g., describe how the mother and daughter are similar or different).

Students can also use the information in the text to talk about cause and effect. However, when doing so, there is no speculation. The causes and effects can be pointed to directly in the text. For example, with a hypothetical story a teacher might ask, “Why did Bob walk home from work?” The answer is explicitly in the text: “His car would not start.” Of course, in some cases there may be subtleties from which one can infer reasons behind Bob’s stated reason. However, once students move beyond the literal level of the text, they are not understanding and organizing. Once students begin to speculate about other reasons, for example, based on their
personal experience or opinion, they are performing another task type, analyzing and evaluating.

Another key skill that can be introduced and practiced at this literal level is summarizing, either written or orally. Summarizing, or retelling, is a key skill in most academic disciplines. This involves not so much interpreting a writer’s or speaker’s ideas as simply restating the idea in the student’s own words.

In The House on Mango Street a range of understanding and organizing tasks can be pursued depending on the linguistic and content-related goals of the lesson (Table 4).

What all of the tasks in Table 4 have in common is that they require students to demonstrate their comprehension of the text on a literal level. With the first activity, students use their understanding of the text to report on the physical appearance and condition of the house on Mango Street, a form of summarization.

In the second activity, students identify the places that the family has lived and put the places in order. Esperanza begins her story by noting:

> We didn’t always live on Mango Street. Before that we lived on Loomis on the third floor, and before that we lived on Keeler. Before Keeler it was Paulina, and before that I can’t remember. (Cisneros, 1991, p. 3)

To do this sequencing task, students first need to infer that Paulina, Keeler, and Loomis are in fact streets where the family has lived.

<table>
<thead>
<tr>
<th>TABLE 4. Understanding and Organizing Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prompt</td>
</tr>
<tr>
<td>1. What did the house on Mango Street look</td>
</tr>
<tr>
<td>like?</td>
</tr>
<tr>
<td>2. The young girl’s family lived on four</td>
</tr>
<tr>
<td>streets. What were they? Put them in order</td>
</tr>
<tr>
<td>from first to last.</td>
</tr>
<tr>
<td>3. Tell your partner what you remember from</td>
</tr>
<tr>
<td>the story.</td>
</tr>
<tr>
<td>4. Put the words and expressions in the list</td>
</tr>
<tr>
<td>[not shown here] into these categories:</td>
</tr>
<tr>
<td>Her Dream House, Mango Street, or Both.</td>
</tr>
<tr>
<td>5. Why did the family leave Loomis quickly?</td>
</tr>
</tbody>
</table>
lived, even though there is no explicit mention of this fact. Inference such as this falls under the next category in Numrich’s sequence, interpreting. However, this example serves as a reminder that these task types are not mutually exclusive and not always strictly sequential.

The third prompt asks students to give an informal summary of what they have understood. The fourth has them categorizing details they found in the text. Working in pairs, most students will be able to get immediate feedback on their comprehension. The fifth item asks students to identify cause and effect. Again, there is no speculation about why the family left Loomis. The text explains:

We had to leave the flat on Loomis quick. The water pipes broke and the landlord wouldn’t fix them because the house was too old. We had to leave fast. We were using the washroom next door and carrying water over in empty milk gallons. That’s why Mama and Papa looked for a house, and that’s why we moved into the house on Mango Street, far away, on the other side of town. (Cisneros, 1991, p. 4)

The more closely we look at the text, the greater the potential for going even more deeply. Having a firm foundation in the text enables students to then move toward more authoritative judgments about the less literal levels of the text because of this solid understanding of the content. This is what makes the first three task types an essential part of the critical thinking process. Without an awareness of what we bring to the topic and a firm grounding in the facts, sound critical thinking cannot happen.

**INTERPRETING**

If understanding and organizing are about the black and white of the text, then interpreting is about the shades of gray. In this task type, students are still focused on the primary text—the reading, listening, or visual. With interpreting, students begin to look below the literal surface of the text. It is at this stage that they make inferences, interpret meaning, and hypothesize about what they have read, heard, or seen.

The great challenge with this type of task is to stay focused on the text. That is, answers or insights must still be drawn only from the text. When inferring, students use the skills and knowledge they...
have accumulated. However, this is not yet the time to bring in outside information or personal opinions. At this stage we are asking students to be Sherlock Holmes or investigators at the scene of a crime. Such detectives must use what they have in front of them, the evidence, to come up with a response, theory, or judgment. The evidence they present must be reasonable, if not always convincing, to others. In other words, there must be a clear textual basis for inferences and hypotheses made.

One subtle example of this skill is the task described earlier that asked students to infer that Paulina, Keeler, and Loomis were in fact streets the family had lived on. They may instinctively know that these names refer to streets, but we can still ask the all-important question in inference: “How do you know?” Evidence can be found at several points in the story. The first sentence refers to Mango Street and then goes on to discuss where the family had lived before—other houses on other streets. Esperanza also refers to the apartment “on Loomis.” Student may even use their linguistic knowledge (that on is used with street names) to advance a reasonable inference. Table 5 presents a number of other examples of tasks associated with interpreting.

All of the prompts in Table 5 should be followed up with the question, “How do you know?” Items such as these may make the lesson more enjoyable and engaging. However, more important, they will challenge students both linguistically and cognitively to

### TABLE 5. Interpreting Tasks

<table>
<thead>
<tr>
<th>Prompt</th>
<th>Language Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What did the nun mean when she said, “You live there?” How did she say it?</td>
<td>Retelling a story in the present or past</td>
</tr>
<tr>
<td>2. What was the girl thinking when she nodded to the nun?</td>
<td>Giving a definition</td>
</tr>
<tr>
<td>3. What is an elm?</td>
<td>Giving reasons with because</td>
</tr>
<tr>
<td>4. What did she mean when she said that the windows were “so small you’d think they were holding their breath”?</td>
<td>Expressing opinions</td>
</tr>
<tr>
<td>5. Does she believe her parents when they say Mango Street is temporary?</td>
<td>Paraphrasing</td>
</tr>
<tr>
<td>6. What did she mean when she said she wanted a house that she could “point to”?</td>
<td></td>
</tr>
</tbody>
</table>

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use high-level academic skills and support their interpretations with textual evidence, an important skill related to all academic learning.

In the first item, students read the nun’s comment as she looked at the exterior of Esperanza’s home on Loomis. If students “hear” the nun’s unspoken attitude in the italicized there, they will be able to understand the idea behind the literal word. This would be an appropriate moment to teach students about inferring meaning from intonation. They then present this as evidence together with what they know about the house and its surroundings to flesh out the meaning of the nun’s utterance.

With the second item, students unpack what Esperanza was thinking as she responded to the nun’s comment. They feel the impact of the nun’s words because they can point to evidence in the text regarding Esperanza’s feelings about her home and the information they have about the kind of home she truly wants to have.

The third item is a common reading skills activity—guessing meaning from context. One needs to use the context to infer the meaning of the word elm: “There is no front yard, only four little elms the city planted by the curb” (Cisneros, 1991, p. 4). If students know the term planted and perhaps the word curb, then this is true guessing meaning from context, or inference. They will surmise that an elm is a tree. Without accessible clues from context—evidence in the text—this type of activity may simply be guessing.

The fourth item asks students to take the description of Mango Street beyond the literal level. The expression referring to the windows as being “so small you’d think they were holding their breath” (Cisneros, 1991, p. 4) gives students the feeling that the house was not a healthy place; it was airless, small, and uncomfortable. Students can take this image and then describe the opposite to talk about the better house that Esperanza imagines living in one day.

To answer the fifth prompt, students have to infer what Esperanza means when she says, “But I know how things go” (Cisneros, 1991, p. 5). By this point in the story, students, like Esperanza herself, are at least suspicious of her parents’ frustrated promises of finding a suitable house. She knows that the dream may never become a reality.
The sixth item could be the "final exam" question for this reading because this statement from Esperanza is a summary of the main ideas and details in the reading. To answer this question, students need to have mastered the story on both its literal and figurative levels.

Interpreting, with its central subskill of inference, is at the heart of critical thinking. Students need to go between the lines of what they read, see, hear, and think. They should not be led automatically by their first impression, their personal experience, or their gut instinct. Academic thought does not exclude emotion or personal experience; however, it must be guided by a critical examination of the evidence. So we stop at this crucial juncture in the lesson to interpret—like a crime scene full of clues waiting to be uncovered and explored. Students have looked at a text on its literal level and then taken the clues in the text to become aware of other, less obvious ideas.

**INQUIRING FURTHER**
In any academic context, one source is rarely enough to produce reliable, well-thought-out judgments or decisions. Judges and juries hear a number of witnesses and arguments before ruling in a case. Detectives do not rely on just one piece of evidence. They look for as many clues or sources as possible to reach conclusions that are as reliable as possible. They study. They consult experts. Therefore, the next task in the Numrich sequence asks students to seek out new information or different understandings of the topic that they are exploring.

With understanding and organizing as well as interpreting, students were focused on the primary text. They mined it for main ideas and details and began looking at the relationships among ideas, such as sequences of events, similarities and differences, and causes and effects. Then they looked between the lines to determine what else might be suggested by the collection of facts within the text. With inquiring further, students take what they know from the text, together with their initial impressions or assumptions on the topic, and then go deeper.

Activities related to inquiring further include surveying the public, identifying and interviewing a specialist on the topic, and
conducting library or Internet research. All of these tasks require some teacher instruction or guidance. Such activities lend themselves to teaching or practicing question formation, direct and reported speech, and referential expressions such as according to.

Depending on the goals of the lesson, prompts for this task type that relate to The House on Mango Street might include those listed in Table 6.

Each of the activities in Table 6 is related to a central theme in The House on Mango Street or to a direction in which students could take the topic. However, none of the tasks makes reference to the content of The House on Mango Street itself. Each asks students to extend their current mastery of the topic in a new direction, using the story as a jumping-off point. Information collected or encountered in inquiring further serves as an additional text in the next task type, analyzing and evaluating.

ANALYZING AND EVALUATING
At this stage, students pull together the various texts they have collected over the course of the entire lesson. If the task of inquiring further was skipped, this may also be a time to introduce a new, related resource on the topic. This additional text may also come in a different medium. For example, if the first text is a reading, the second might be a listening (a radio interview) or multimedia activity (a field interview and written report). This secondary text

TABLE 6. Inquiring Further Tasks

<table>
<thead>
<tr>
<th>Prompt</th>
<th>Language Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Read another story by Cisneros, perhaps another from the collection in The House on Mango Street. Tell the class about it.</td>
<td>Retelling a story in the present or past</td>
</tr>
<tr>
<td>2. Interview a classmate about where he or she lives (apartment, house, favorite room, or neighborhood). Write a descriptive paragraph about it.</td>
<td>Question formation</td>
</tr>
<tr>
<td>3. Interview a parent about a move he or she made (e.g., from his or her childhood home). Write the story of that experience.</td>
<td>Indirect speech</td>
</tr>
<tr>
<td>4. Research and report on the benefits and drawbacks of renting versus owning a home.</td>
<td>Comparing and contrasting</td>
</tr>
</tbody>
</table>

A Sequence of Critical Thinking Tasks 17
could cast the primary text in a new light so that students can take the topic deeper, maintain their interest and engagement in the topic, and see a different perspective or point of view. Lastly, this text should also be congruent with the linguistic goals for the class.

Consider the two analyzing and evaluating tasks in Table 7.

A lesson or unit may end with analyzing and evaluating. At this stage, students may produce a culminating piece of writing or perform a speaking activity that enables the teacher to assess their development in language and critical thinking. Both tasks in Table 7 offer this opportunity. Even if teachers are not required to assess students formally, they will still need to know where students are in their skills development in order to determine how to proceed in the future. Given everything that the class has studied, what might that final product be? Here are a few ideas:

- Design your dream house. Create a diorama or poster presentation, labeling key elements. Then write a paragraph about it. Be prepared to present and discuss your dream home in a classroom gallery exhibit.
- Write a paragraph or short essay comparing and contrasting your home now with your dream home.

These end goals should be the driving force behind the curricular choices the teacher makes in planning the lesson or unit.

**MAKING DECISIONS**

Although a lesson or unit may stop with analyzing and evaluating, there is still one final level of Numrich’s sequence. Making decisions is where students are left to their own devices—to use the

**TABLE 7. Analyzing and Evaluating Tasks**

<table>
<thead>
<tr>
<th>Prompt</th>
<th>Language Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Read the article summarizing tenants’ rights.</td>
<td>Describing a place</td>
</tr>
<tr>
<td>Based on what you know about the apartment on Loomis and about tenants’</td>
<td>Giving reasons with <em>because</em></td>
</tr>
<tr>
<td>rights, write a letter to Esperanza’s landlord on Loomis.</td>
<td>Comparing and contrasting</td>
</tr>
<tr>
<td>2. Compare and contrast Esperanza’s experience with moving with that of</td>
<td></td>
</tr>
<tr>
<td>the person you interviewed. Then present five tips for people who are</td>
<td></td>
</tr>
<tr>
<td>planning to move.</td>
<td></td>
</tr>
</tbody>
</table>
critical thinking skills in a nonclassroom setting. Students enroll in a class, complete assignments, do homework, take tests, and, before they know it, the course ends. Then what? If the students are English language learners, hopefully they have developed their language skills. Teachers who have included the development of critical thinking in their lessons will also hope that students’ newly developed language skills and critical thinking skills will become part of students’ everyday life. After all, a course is not an end in itself but a stepping stone.

Making decisions, then, might be seen less as a step in the sequence than a byproduct of it. It can be a task assigned by the teacher; however, ideally it is not teacher initiated. It is an activity performed by individual citizens. Students may see a problem in their home, community, or the broader world and address it. They may see an issue that interests them and pursue it. They ask questions, read between the lines, and ask for clarification. When stuck in maddeningly heavy traffic, they look at the situation and consider options before acting or reacting.

Students who worked through the unit on *The House on Mango Street* might make some of the decisions in Table 8, phrased here as a teacher might initiate them.

Making decisions walks a fine line between being a classroom activity and a real-life activity. However, it also speaks to the debate about whether critical thinking skills can be taught at all and, if they can be taught, whether they can be transferred from an academic activity or discipline to other contexts. As Willingham notes, “you

**TABLE 8. Making Decisions Tasks**

<table>
<thead>
<tr>
<th>Prompt</th>
<th>Language Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Identify a problem in your home, such as a leaky faucet, and learn how to fix it.</td>
<td>Following or describing a process</td>
</tr>
<tr>
<td>2. Learn about tenants’ rights in your community, and advocate for change where it is needed.</td>
<td>Reporting facts</td>
</tr>
<tr>
<td>3. Identify a problem in your community, and propose a solution.</td>
<td>Proposing solutions with <em>should</em></td>
</tr>
<tr>
<td>4. Talk with your partner or family, make an achievable goal, and pursue it.</td>
<td></td>
</tr>
</tbody>
</table>

A Sequence of Critical Thinking Tasks
may have fabulous critical thinking skills, but you don’t know when they are appropriate’’ (quoted in Strauss, 2008, p. B2). In other words, students may be able to complete a math problem requiring certain analytical skills or answer questions about a Sandra Cisneros story with critical awareness, but without a teacher’s prompt, will these same students know when to “switch on” their critical thinking skills? In fact, Willingham (2007) states that critical thinking is tied to deep content learning and, in fact, may be bound to content, inhibiting transfer to other contexts. He believes that learning to think critically is not like riding a bike, a skill picked up and easily maintained.

From a different perspective, Van Gelder (2005) likens learning these skills to learning to dance ballet: It must be studied, it is difficult and remains challenging even when one is quite proficient, and there is always more to learn. Van Gelder notes that humans are not necessarily designed to be all that critical: “‘Homo sapiens evolved to be just logical enough to survive’’ (p. 42). Walking on one’s toes, he notes, may not be natural, but it can be learned with studied effort and some pain. Van Gelder recommends that critical thinking skills instruction be an explicit part of the curriculum.

No doubt Numrich’s sequence of critical thinking tasks presumes that critical thinking can be taught and learned. Transfer of any skill from the classroom to the outside world may begin in a classroom activity. However, teachers then need to revisit these skills in other contexts. They need to ask students to stop and consider what skills are needed in a given case (whether in class materials or in the issues or concerns students bring to the classroom) and ask how one case might relate to another. The development of critical thinking skills requires consciousness-raising practice in addition to the practice of the discrete skills themselves so that students may access these metacognitive strategies on their own.

CONCLUSION

Numrich’s sequence of critical thinking tasks provides a framework for teachers who want to integrate critical thinking into their lessons. However, teachers should do so mindfully. They need to keep their own critical thinking skills “on,” maintaining an open,
reflective awareness of what they think, do, and say. They must be mindful of what they ask students to do, how students respond, and how they respond to students. Some teachers might even allow students to think critically about the teacher’s own classroom practices.

Moreover, critical thinking is not simply a matter of thinking the way the teacher does on any given day. There may be disagreement. Participants’ views or opinions may not change. However, even in disagreement, there will be reasoned judgments. At some point we say, “Fair enough,” and continue on in the classroom, as in life.

Critical thinking is about understanding and acting, perhaps in new ways. Like language learning itself, critical thinking can be a great and even daunting challenge and responsibility, not only for students but for teachers as well. For teachers and nonteachers alike, however, it is a trend well worth keeping in fashion.

THE AUTHOR

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REFERENCES


