"I Have a Few Minutes Left! Now What?"
Maximizing Learning When Lessons Run Short
The “Engaging the Adolescent Learner” series is dedicated to conversations about quality instruction in middle and high school classrooms. We have examined such diverse topics as writing across the disciplines, blended learning, and close reading with text-dependent questions. Each of these presumes a rigorous curriculum and a prepared teacher. But let’s have a reality check right now. Both of us are high school English teachers, and on the best days we really do believe we are working at an optimum level to foster student learning. We’re confident enough to say that our students would agree. In addition, we work with amazing colleagues who are constantly pushing us to be better. But despite our good intentions, learning can and does go astray from time to time in our classrooms. This is especially true when our timing is off.

This year we have been incorporating more technology in our classrooms. We were excited when a new order of electronic touch tablets complete with charging carts arrived at our school. In addition, our faculty has been engaged in continuing work using our school’s new e-platform learning system. It allows us to create learning modules complete with multimedia texts and discussion boards to support student discourse.

However, it’s not been without some bumps along the way, and much of it is related to our timing. We’re not always sure how long a collaborative group of learners will take to complete a module together. Although we can influence the pacing in our own teacher-directed small-group instruction, these collaborative groups are more variable.

At the same time, we often have other students in the class engaged in independent reading or writing, and our announcements of a transition to a new learning arrangement don’t always coincide with their need to finish a chapter or complete a written argument they are crafting. Ironically, we have found ourselves returning to some instructional approaches we first learned about in our teacher preparation programs. These impromptu routines have been lifesavers for maintaining learning even when our timing is a bit off.

Sponge Activities in Secondary Classrooms

Madeline Hunter (2004), the instructional researcher who has profoundly influenced how we teach, coined the term “sponge activity” to describe “learning activities that soak up precious time that would otherwise be lost” (p. 117). She argued that these sponge activities should cleave to two principles:

- **Rules and goals** should be clear, provide feedback, and allow for progression toward the game’s goals.
- **Challenge** should be neither too simplistic nor so frustrating that the learner will quit. The game should have an element of uncertainty as to its outcome as one progresses toward the goal.
- **Mystery** is addressed through complexity of the information.
- **Control** is active and influenced directly by the learner.
1. They focus on review of previously learned material.
2. Their regular use provides distributed practice opportunities.

Let’s all take a moment to silently thank Madeline Hunter not only for defining sponge activities but also for providing a solid rationale for their use. We have to admit that we always felt a bit guilty when we used them. Hunter gave us a way to look at these differently and view them as a valid method of teaching.

It’s important to note that sponge activities have been stretched, sometimes beyond recognition, to include anything that keeps students occupied. Although there may be a social skills purpose to engage in non-academic games like 7-Up or Telephone for young children, they are rarely appropriate at the secondary level. However, games can be a useful device for promoting learning, especially when no extrinsic reward is provided (Lepper & Cordova, 1992).

Now let’s get specific. These instructional routines can fill the remaining time in a period and ensure that students engage, learn, and remember. We suggest that you have some of these, and the materials required to implement them, on hand at all times. We also suggest that you build these into your substitute teacher plans as they are generic enough to be used within most units of study.

**A–Z Charts**
A–Z charts are a means for encouraging student monitoring of their own learning (Allen, 2000). This simple chart, like the one seen in Figure 1, contains alphabetically arranged blocks for students to record all the words they know in association with a particular topic. The teacher collects the charts to assess how many terms students already know. For example, during a unit of study on the rock cycle, earth science teacher Matthew Jones used an A–Z chart in the last five minutes of the class to check students’ understanding. Mr. Jones used a timer and required students to count the number of correctly associated terms and to track their progress over time.

These A–Z charts can be used again after a few lessons have been taught so that students can add to the list. Ask students to draw a line under the last word previously written in the box to indicate what has been added. Again, the charts should be

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**FIGURE 1**
A–Z Chart

<table>
<thead>
<tr>
<th>Topic:</th>
<th>A</th>
<th>G</th>
<th>M</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>H</td>
<td></td>
<td>T</td>
</tr>
<tr>
<td>C</td>
<td>I</td>
<td>O</td>
<td>U</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>J</td>
<td>P</td>
<td>V</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td></td>
<td>K</td>
<td>Q</td>
<td>W</td>
</tr>
<tr>
<td>F</td>
<td>L</td>
<td>R</td>
<td>XYZ</td>
<td></td>
</tr>
</tbody>
</table>
collected in order to find out how their learning is progressing. This process can be repeated again near the end of the unit of study. By giving students opportunities to add to their list, they are able to witness evidence of their own learning.

For example, when Mr. Lee introduced Profiles in Courage (Kennedy, 1956) to his eighth graders, he began by inviting them to complete a class A–Z chart of terms they associated with courage. Initially they included words like heroic and brave. As they read the chapters on Sam Houston and John Quincy Adams, they expanded their repertoire to include fearlessness, facing hardship, integrity, tenacity, and persistence.

**Vocabulary Mnemonics**

Mnemonics are devices used to aid memory. The term is derived from the Greek word mnemonikos, meaning mindful. These are useful for remembering meanings, strings of terms, and even spelling. Student-created mnemonics are powerful ways to help them remember information. For example, during a unit on the respiratory system, Heather Campbell asked her students to spend the last five minutes of class creating a mnemonic that would help them remember the phases of lung development:

- E = Embryonic (4-5 weeks)
- P = Pseudoglandular (5-16 weeks)
- C = Canalicular (16-26 weeks)
- T = Terminal sac (26 weeks to 8 months)
- A = Alveolar (8 months to birth)

Marco came up with Every Person Can Try Air. Jessica’s was different: Embryos Please Come To Attention. The specific words that students use don’t matter as much as the time that they spend thinking about the content and trying out ideas that work and that they will remember.

**There Are Several Different Types of Mnemonics**

- **Peg mnemonics**—These are perhaps the most familiar to most of us and are useful for recalling a list of terms. Many of us learned the name of the Great Lakes by using the peg mnemonic of HOMES, which stands for Huron, Ontario, Michigan, Erie, and Superior.

- **Visual mnemonics**—An effective means for remembering the meaning of words is to associate them with a visual representation. When students create vocabulary cards they are constructing their own visual mnemonics to remember a term. A helpful teacher resource for visual mnemonics is Vocabulary Cartoons (Burchers, Burchers, & Burchers, 1998). Students can make vocabulary cards with resources from readwritethink.org by using either the vocabulary card built in to the Trading Cards mobile app or customizing a Create Your Own card in the online Trading Card Creator interactive.

- **Physical mnemonics**—This technique involves physical movement as an element in aiding memory. The technique of Total Physical Response (TPR) utilizes physical mnemonics to help English language learners acquire new language (Asher, 1969). We like to use active physical mnemonics with our students through Guess My Word, a simplified version of Charades. A teacher displays a vocabulary word the class is learning to all but one student. The class uses gestures and movement to represent the word in order to help the student name the correct word. It is important to remember that the words used in Guess My Word have been previously introduced and are identified in advance by category or known list.

**Concept Ladders**

These are developed for words that represent a concept by associating it with the characteristics of the concept (Gillet & Temple, 1982). In this way, students learn to associate words with one another rather than viewing them as a string of unrelated terms. The teacher identifies the focus word then guides students in developing their understanding of the concept by “climbing up the ladder” to identify these attributes:

- What is it a kind of?
- What is it a part of?
- What is it a stage of?
- What is it a product or result of? (Brassell & Flood, 2004, p. 12)

They then “climb down” the ladder to develop examples of the focus word:
What are kinds of it?
What are parts of it?
What are stages of it?
What are products or results of it?
(Brassell & Flood, 2004, p. 12)

A concept ladder for the focus word Great Depression, developed with just a few minutes left in the US history class, appears in Figure 2.

**RAFT Writing**

RAFT (Santa, Havens, & Evelyn, 1996) is a writing frame that invites students to take perspectives in their writing. The ability to assume a character’s perspective requires that the reader understand the motives, traits, and behaviors of the individual or subject. Similarly, the ability to understand the effect of an opinion or argument requires the writer to understand his or her audience and the expected format of the writing.

RAFT stands for:

R = role (who is the writer, what is the role of the writer?)
A = audience (to whom are you writing?)
F = format (what format should the writing be in?)
T = topic (what are you writing about?)

RAFTs are often used in content area classrooms to check for understanding. They are a great sponge activity because they are easy to write, versatile in how students respond, and are not formulaic. Students bring their knowledge to the writing prompt and can demonstrate their understanding, or need for additional instruction. Once students are familiar with the RAFT format, teachers can assign groups of students different components and then invite group conversations about the topic at hand. For example, students may enter the room to find the following written on the board:

<table>
<thead>
<tr>
<th>Last name</th>
<th>Last name</th>
</tr>
</thead>
<tbody>
<tr>
<td>A – M</td>
<td>N – Z</td>
</tr>
<tr>
<td>R</td>
<td>colonists</td>
</tr>
<tr>
<td>A</td>
<td>King George</td>
</tr>
<tr>
<td>F</td>
<td>Informational letter</td>
</tr>
<tr>
<td>T</td>
<td>Protest letter</td>
</tr>
</tbody>
</table>

Why the taxes? Why the taxes?

RAFTs also provide students with an opportunity to respond to the reading that they have done either collaboratively or independently. As an example, students in Mr. Arturo Tomay’s class were
focused on the digestive system. At the end of the class period, students were asked to respond to the following RAFT.

R  Digestive System
A  Chocolate
F  Love letter
T  Why I need you

Calvin, using the content information he learned in science, responded by writing the following:

Dear Chocolate,

I like how you get into my mouth and how my teeth can bite you into little, yummy pieces. I can’t resist you! I also like it when you work with my saliva and break down into even smaller, yummy pieces. When I eat too much of you, my molars hurt. My esophagus works to push you down. I can’t taste you anymore when you pass into my stomach and then intestines. I really needed [you] because you help my small intestine by giving me the milk so my bones can grow stronger. Soon I’ll be saying goodbye to you as you leave my system. I just say, “Can I have some more?” I can’t live without you.

Sincerely,
Calvin

Take 6

A quick and easy way to engage students in review of content is to turn that review into a speed game. To provide students with a few minutes of review, divide the class into pairs and give each pair one die. Each student also needs paper on which to complete the review. The die acts as a timer, with students in the pair taking turns either writing or rolling the die, trying to roll a six.

For example, Malcolm Frampton wanted to have his students review the locations of each of the US states as part of his ongoing eighth-grade history class. He kept copies of the map of the US ready, in case there was time on a given day to use them.

Each student in each partnership rolls the dice to see who has the larger number. That person gets to write first. When told, the student with the higher number starts writing on his or her map while the other student keeps rolling the dice. When the dice rolls a six, the two students change roles. Now the student who was writing on his or her paper is rolling the dice while the other person is frantically trying to identify as many states as possible. The students change roles whenever the dice comes up six. At the end of the predetermined amount of time, typically one or two minutes, the timer rings and students review their results. They count up the correct number of responses.

This activity can be used to review a wide range of topics. Chemistry teacher Marla Sanchez asks her students to record the number of correct elements that they identified on the periodic table in their science notebooks. World history teacher James Applegate awards the winning partnership a “Geographer of the Day” sticker for the team that correctly identified the greatest number of countries. Seventh-grade English teacher Christine Dillman has students graph the number of persuasive terms that they can identify.

Math Minute

It is common practice at our school for math teachers to engage their students in speed review contests. Typically this review is focused on number sense, a topic that some students forget as they progress mathematically. At the start of the year, the problems are addition, subtraction, multiplication, and division. On a typical day, there are 45 problems presented for students to do. They race against the teacher in who can complete more of them correctly. This has grown in popularity and teachers from other content areas often join the class during the last few minutes of their preparation period to compete against the math teacher and his or her students. The winner posts a photo.
on Facebook with the winning paper displayed. There is no other reward; it seems to be enough that there is friendly competition and students actively engage in the reviews.

**Daily Tweet**
A more modern writing-to-learn prompt (refer to the IRA E-ssentials column “Writing in the Disciplines (Even When You’re Not a Writing Teacher)”) is called the Daily Tweet. At the end of the period, students are asked to write a message, 140 characters or less, from the perspective of a person (or sometimes a thing) that they are studying.

For example, when reading *Night* (Wiesel, 1972), time permitting, students were asked to tweet about the reading from the day. In biology, students tweeted about meiosis and mitosis whereas students in history tweeted from the perspective of Napoleon. Their tweets needed to represent their understanding of the content and allowed their teachers a quick glimpse into students’ understanding and thinking.

**Whip Around**
When there are just a few minutes left and students could use a stretch, the Whip Around is a great routine to try. It begins with an individual task: students each write down three (or more if you want) things. These can be three things that they learned that day, three things about the period in history that they are studying, three character traits from the shared reading text, or just about anything else related to the content of the class. As they finish their list, students stand. We monitor this so that everyone has to be standing by a certain time. Then the teacher randomly calls on students to share one item from their list. As the identified student does so, the others listen and check the item off their list if they have it. Once a student has all their ideas checked off, they sit down. This process moves quickly as the teacher calls on different students until there is only one person standing.

For example, in a Whip Around review following a class about the sun, the students produced 27 different ideas, including photosphere; 10,000°Fahrenheit; 870,000 miles wide; closest star to Earth; and 27-day rotation. In this class, the teacher offers the last student standing a piece of “Smartie” candy; this incentivizes the other students to pay attention to see if any of the ideas are repeated from those already shared.

**Bingo**
When the goal is to review vocabulary, a quick way to play with meanings is through a bingo game. Students can be provided a blank bingo card, such as the one in Figure 3. Each student then creates his or her own bingo card, inserting words from the word wall or other set vocabulary list in the squares. Each student will create bingo cards with different words on each of them.

Then the teacher starts calling off definitions. We recommend having the definitions written on slips of paper and then drawing them from a bag, live in front of students. This makes the game more authentic and ensures that the teacher remembers which words have been called and which have not. The winner can be recognized in a variety of ways, including the diverse ways that have already been presented in this column.

Anatomy and physiology teacher Arthur McIntire uses this type of bingo game regularly with his students. Rather than the word wall, he selects a page from their text and asks them to put the anatomical words from that page in the squares. Then he describes the physiology and students attempt to match the correct terms. As Mr. McIntire notes, “It’s a great way to keep them focused on the content when there are a few minutes left in the class. And, as an extra benefit, my students see the connection between the form and the function; they learn to connect anatomy terminology with physiology.”
Thought-Provoking Questions
Nancy remembers standing in the checkout line of a teacher supplies store several weeks into her first year of teaching. She was tired, running out of ideas, and leaning on her experienced colleagues for materials and advice. While waiting for her turn, and with her arms loaded up with new items for her class, she spied a display of small question books labeled by grade level and content area. Recognizing a lifeline when she saw it, she immediately added several to her stack of purchases. The questions soon became a ritual when she had a few extra minutes of unplanned time in her class. “What character in literature is most like you?” read one. “How would you use what you learned today if you were on a desert island?” read another.

Since that time we have made a point of collecting questions to pose to students as discussion starters. At times we flip through a stack and pull one out at random. At other times we look for one that directly relates to the content we have been learning. Neruda’s *The Book of Questions* (1991) has been a great source. His questions are posed in the form of poems that encourage our budding philosophers to extend their thinking.

Identified as a text exemplar in the Common Core State Standards, we find this to be an excellent way to consume this text.

For example, Neruda’s (1991) question poem, “What forced labor/does Hitler do in hell?” (p. 70) sparked discussion among our students who were learning about the Holocaust in World History and reading *Night* in our class. Others are more lighthearted; one poem contained the question “Isn’t it better never than late?” (p. 20), which caused lots of conversation among the procrastinators in the group!

No Time to Waste
No teacher wants to waste time, but we all have ended up with lessons that did not require the amount of time we expected when we planned. Rather than ask students to start their homework or to talk quietly, there are a number of time-tested sponge activities that keep students learning. Keeping a few of these instructional routines handy for times when lessons run short ensures that every instructional minute is used. In addition, these routines are fun and students enjoy reviewing content when there’s a friendly competition.
“I HAVE A FEW MINUTES LEFT! NOW WHAT?”

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### Additional Resources From IRA


Buehl’s book is full of easy-to-implement learning activities for advancing literacy and comprehension. While some take much longer and would not be appropriate for impromptu use, many others are. These techniques include Written Conversations, Save the Last Word for Me, and Line-up Reviews. In addition, they are easily adapted to other disciplines, such as History Memory Bubbles and Eyewitness Testimony Charts.


The author discusses the role of play in adolescent learning and grounds the work in the context of teamwork and communication. Targeting middle school learners, the author offers suggestions such as Vocabulary in Motion and Literary Road Maps to spark creativity.


The author describes an after-school intervention called Language Workshop in which many short games were used to increase students’ knowledge of academic English. Many of these games are easily adaptable to classrooms, including Picture Puzzlers, Academic Taboo, and Pictionades (a combination of Pictionary and Charades).


This online strategy guide introduces the RAFT technique and offers practical ideas for using this technique to teach students to experiment with various perspectives in their writing.

### REFERENCES


