THERE’S NO TIME LIKE REAL-TIME
Immediate Formative Assessments for Secondary Classrooms

TONY VARRATO
Mowing the lawn is a formative assessment. You cut in straight lines, you follow the path you set, and you clearly see if you’ve done your job correctly.

But sometimes, for some reason, a couple of grass blades are lying down, and you don’t catch them the first time.

If you notice them while you are still mowing, no problem. You go to the problem area, fix it, and go on about your task.

But if you don’t notice it until the next day when your spouse points out your oversight, it’s a hassle. Sure, you can still fix the problem. But it involves getting the tractor back out, restarting the engine, addressing the problem, and putting the lawn mower away again before you can start the next task. And if it’s the rainy season, then the other grass has started to grow, and it’ll take another mowing cycle to get it right. It just works better all around if you catch it in real time while you’re mowing.

Real-time formative assessment is the most efficient way to address issues, both for reinforcement and extension. Research developed over 15 years has proven formative assessment to be the key component in guiding instruction and diversifying student learning (Black & William, 1998; Chappuis & Chappuis, 2009; Rusman et al., 2013). The International Reading Association (2013) recommends that teachers use formative assessments to guide instruction and to diversify student education plans. Revving up those formative assessments to real time will take advantage of the students’ mental motors that are already fired up and ready to go. You may be able to get the kids’ engines restarted the next day, but it’s not going to have the same engagement. And considering the amount of curriculum you need to cover, you cannot afford to waste any time.

Traditional formative assessments, such as homework, graphic organizers, group projects, and presentations are useful in most classrooms. They provide a chance for both the teacher and the student to gauge and extend understanding. However, they take time. First, the student needs time to complete the assessment. If it’s a three-page series of questions, there can be a significant time commitment. Second, when the teacher collects 175 three-page homework assignments, she has to lace up those grading shoes for the paper-grading hurdle. As long as that assignment is solid, both as a gauge and an extension, it is worth the effort. However, the very nature of checking homework means any information the teacher gets from those papers will have to wait until the next day to affect instruction.

Exit slips, in contrast, are a quick check to see if all the students “got it.” Completion time and checking time are drastically reduced but, by definition, exit slips indicate the students have already left the room by the time you see the assessment. Admit slips are another step in the right direction, but they show you where kids are before instruction begins. If you can do a similar assignment quickly mid-class, then you have a real-time assessment.

There are many methods of assessing your students in real time. The trick is picking assessments not on the basis of the prettiest bells and whistles but on how they fit your curriculum, physical classroom setting, and class makeup. Doing teaching right involves a substantial time and energy commitment. However, it seems silly to collect a three-minute homework assignment that will take me three hours to grade. Therefore, when I plan my lessons, I focus on my assessment goals to spend that time and energy as efficiently as possible.

To be worth my effort, a real-time formative assessment must enable me to do the following:

- Track student progress
- Help kids who need help
- Advance the kids who are advanced
- Avoid wasting time
- Avoid unnecessary grading
- Engage the student

Keeping It Real-Time

Here’s where real-time formative information is vital: You’re in the middle of explaining that THING. You know that THING. It’s the quantum physics, Calculus 12,
ancient philosophy written in Aka-Bo. The kids were having trouble, but you think you just landed a gold medal in your Olympic teaching event. And you need to know right now if they get it, or if you have to teach it again.

Obviously, observation and discussion are immediate, but you’ve got to be able to read those kids, the ones who are afraid to voice their opinions for fear of being wrong and those kids who are already five steps ahead of the rest of the class—after all, they’ve been reading Aka-Bo since they were in the crib. “Thumbs Up, Thumbs Down” or the “Hand Thermometer” are quick checks, but they can be inaccurate. Even if the kids are 100% truthful, some kids think they get it when they don’t, and others think they don’t when they do. You need concrete information.

Writing argumentative thesis statements is the hardest thing I teach my ninth graders. They come from 13 different middle schools and therefore have 13 different backgrounds. I need them to go from simple plot summary (“Harrison Bergeron was about a world where people had no freedom”) to arguing a theme (“In ‘Harrison Bergeron,’ Vonnegut warns that an overcontrolling government stifles the growth of the country when it limits personal freedoms”).

I have explained, modeled, done class activities, brainstormed details. And now, I need to know, before I send students home to organize their essay, if they have a good thesis. Without it, their essay will have no direction and the graphic organizer will be a waste of time. For this lesson, my kids have access to a computer. I give them five minutes to jot down their thesis and e-mail it to me with only their student ID numbers on the e-mail. I want to make sure everyone submits one, but I want anonymity to make them feel safe in taking educational risks. My e-mail inbox is displayed on an interactive whiteboard. I randomly click maybe five thesis statements. On each one, the class and I first pick out what is good and then what can be improved. Our goal is to help all learners. The struggling kids get to see good examples and learn how to improve theirs. The accelerated kids see how to make theirs even better. This is a 15-minute activity. My kids learned, and I have checked their status and I have modified my instruction. As a bonus, I don’t have to go home and grade 175 thesis statements. I’ll save that pleasure for the final draft.

Classroom environment is key to real-time formative assessments. I stress voluntary anonymity and a culture of acceptance. To do effective real-time assessment, the kids’ answers are going to be out there on the screen for everyone to see and judge. If students don’t feel safe, they won’t take the risk of being honest and the educational moment will be lost.

**Whoa, Now. I Don’t Have Access to Computers for My Class**

If you want to do this or any of the following assessments without some kind of technology, buy a class set or group sets of whiteboards. I saw 11 × 14 models this month for $3.99, so they aren’t cost prohibitive. And you’ll want that large size so the whole class can see the sentence. I have seen teachers use index cards, paper plates, and other inexpensive items instead of whiteboards. However, whiteboards are reusable and allow for erasing. At the 11 × 14 size, visibility is also valuable. Modify lessons by having individuals or partners create and share. Collect all the boards and select five from the stack for anonymity. Or with brave classes, have students hold up their answers. Do whatever is best for your environment.

**Instant Solutions**

My thesis assessment is a necessary part of teaching that subject. But a 15-minute chunk can be hard to chisel out of the class period. Sometimes we need something that fits under the 5-minute mark. Student game modules are fun and quick but can be pricey. Luckily, many sites offer free web-based tools that give you quick, engaging assessments to use in your class. You must first determine your needs as well as your time and environment constraints when choosing a method that meets these needs.
It’s important to note as you read through the following pages that you can certainly accomplish all of these same assessments with a whiteboard sitting on the students’ desks. It may take a few additional minutes to calculate data, and the anonymity is compromised. But as long as the answers are written down, you have an accurate snapshot of the students’ progress.

Survey Monkey
My administrators have been using Survey Monkey for several years for feedback on inservices and other school issues. If you have access to computers, this is a quick web-based survey engine that allows you to create multiple-choice and open-ended examples. The free mode allows you to create up to 10 questions for up to 100 students. However, once a computer and browser have been used, that computer and browser are locked out of answering again. I was able to take the survey multiple times on my computer by using different browsers, but you might just want to make new quizzes for each class to make your life easier. That would give you individualized data for each class that would probably be the most beneficial.

I created three multiple-choice questions and one open-ended question, which took me about five minutes. I asked the students to click the link on my webpage and answer the questions. I received student responses in under five seconds. I would recommend waiting until everyone has answered before projecting the data on your screen, because those who have not answered will see the correct response and throw off your assessment. Remember to refresh your screen in order to see new responses. I broadcast the responses on my screen in order to discuss answers. For demonstration purposes, I included one question set to one correct answer (see Figure 1). You may also choose multiple answers to conceal the correct answer.

I expected students to struggle between direct and implied metaphor. I didn’t expect anyone to choose mixed metaphor, so that told me that I had a disconnect somewhere. My plan of attack here will be to get a student to explain why this excerpt is an implied metaphor. Simply altering the explanation from a teacher’s phrasing to a student’s phrasing could take care of the misunderstanding. If not, I will have to change methods again or confer with students individually. Note that setting the survey to

![FIGURE 1. Survey Monkey One-Answer Question Example](image)

FIGURE 1. Survey Monkey One-Answer Question Example

Which type of metaphor is Fitzgerald using in this example? “…As if the nerves of her body were continually smouldering.”

multiple answers will eliminate the yellow bar and open the reteaching approach to a student discussion/debate versus a basic reexplanation.

The open-ended question option (see Figure 2) broadens your assessment to show deeper understanding or more creative responses. It also allows the more advanced students an opportunity to go beyond the single answer.

With all student answers displayed on the screen, you can quickly select ones to discuss. Remember to praise each one as well as suggest improvements. There are no names associated on the screen, but the students still own their responses.

![FIGURE 2. Survey Monkey Open-Ended Question Example](image)

FIGURE 2. Survey Monkey Open-Ended Question Example

What is the meaning of life?

Life is a complicated concept. Sure, on a basic level, it means to be alive—to breathe, to pass, to exist. But certainly, life must be more than merely occupying space and consuming air. Life must mean something, and it is that search for that something that defines us and gives meaning; therefore, life is subjectively defined. Life exists only the meaning that you give it. 

A game for the virtuous heart by Milton Bradley. 

Milton defines life as “the period of time during which something exists or continues.” 

It’s to find that ONE thing. Unfortunately, I don’t know what that thing is yet.
Poll Everywhere

Similar to Survey Monkey, Poll Everywhere is a web-based survey system that allows you to assess student understanding in a matter of seconds (see Figure 3). Set up is equally easy. The added bonus for Poll Everywhere is that it allows students to reply either by a computer or by texting in their answer.

If your school does not allow cell phones, this could be an issue and the deciding factor of choosing Poll Everywhere or Survey Monkey. Or this could be a great reason to encourage your administrators to allow cell phones for academic use. After all, most students have them, and at least in my case, the students’ Internet connection is faster than that of my school. In addition, with all the teacher apps and standard smartphone tools like alarms, notepads, schedulers, cameras, and audio recorders, the phones can easily be decriminalized and their techno powers used for good instead of evil.

In the case of Poll Everywhere, texting minimizes the response time, because there is no webpage to find and load before answering. If students do not have phones, the site also offers an Internet option. Be aware that because cell phones are locked out of each survey after responding, sharing phones will not be an option.

The free plan for Poll Everywhere allows for 40 participants for each survey, so I recommend creating a different survey for each class. Also you need to be aware that the results page updates automatically as answers come in, so you will want to hide your screen until all students have finished to avoid skewing your data.

The open-ended response option looks different (see Figure 4) but completes the same functions as the Survey Monkey. Discuss, extend, reteach based on your results.

Ink Survey

This one is still in beta test mode, but it looks like it might be ready for a larger roll out by release of this article. Ink Survey offers open-ended responses that accept words, drawings, or equations. The web-based software requires a drawing device (iPad, tablet, or smartphone) to answer the question. While this is designed primarily for math- and science-related classes, the application for reading and language classes is intriguing. Students can draw and write answers, allowing for instant diverse assessment. Students who express their thoughts better as drawings or equations are able to do so.

Although equations do not show up often in a reading and language classroom, they do make rare appearances. When discussing syllogism with my AP class, I noticed several of my math-oriented students used equations instead of the literary definition in their notes. They understood it better that way. This program gives students the ability to use several cognitive styles.

At press time, the new version was not available; however, this expanded explanation of Ink Survey’s capabilities was recently added. In addition, the company is offering an opportunity to try out and test Ink Survey with your class and improve the software.

Padlet

Padlet is a free site that lets you create a wall. Kids post on the wall with little
moveable boxes like sticky notes. I used it with my freshmen on the first day of school when I was talking about individual choice novels (see Figure 5). I told the students to click on the link on my site, which took them to my Padlet page. Before class I posted the question “So what did you read this summer?” I told them this included anything from books to sports scores. Twenty-five kids clicked and posted on the page at once. It was even entertaining for me when they started to realize they were writing on the page projected on the screen at the front of the room. They can add links, files, or photos to their post. Immediately I found out who my readers and nonreaders were, so I can gather ideas for my reluctant readers as well as off-the-radar books for my bibliophiles.

A cool feature that lets you extend this assessment is the moveable boxes. The student may continue to move or edit her box until she leaves the site. The logged-in teacher, though, may move all the boxes. This enables us to organize the boxes and turn this into a graphic organizer that can be printed, e-mailed, or posted on your site. For example, a history teacher could ask the students to name a reason for the happening of the Civil War. Or I could ask the students to post a character trait for Troy from *Fences* (no repeats allowed) with one supporting detail (see Figure 6).
Get Creative

If you need something more creative or content specific, you may have to create your own assessment. One of my core planning strategies is making the assessment engaging. I believe we get better results and kids learn more when the task is interesting. These assessments will take a little more time than the aforementioned multiple-choice assessments but should still fit inside of a 10–15-minute window.

Photo Hunt

During close novel studies, I ask kids to send me a picture of a movie star who should play a character in a modern movie version. Usually this takes them just a few minutes because they often read with mental images of the character they’ve already selected. This also allows students to give diverse answers anywhere from stock characters they’ve seen a thousand times before, like the evil mad scientist, to an actor who can pull off the subtle nuances that make that specific character stand out. The discussion that happens after they submit is amazing. Struggling readers get a win here with a solid answer and benefit from the discussion. The higher achieving students benefit by defending their often unusual choices against other students who believe their choices are better. It’s a great chance to assess students’ varying levels of understanding, disguising their assessment as a fun activity. As a bonus, I even...
snuck in a characterization lesson into my assessment. You could extend this activity by assigning other characters to individuals or groups and have the class vote on their dream cast for the movie. Students like to see who the other classes picked as well.

**Quick Presentations: Prezi**

PowerPoint and Keynote are great for long-term presentations with obvious formative value. The design component, however, is often a time sucker that takes the students' focus away from content. Although the creative aspect is important, time is a factor in real-time assessment; therefore, you need to focus the students toward content. Prezi offers a free, web-based, stripped down, predesigned presentation that might meet your needs. It's limiting in good ways. Because time is a concern, it gives the students a narrow focus to answer your questions. The dynamic presentation mode, though, is pretty cool. Most formats involve a progression of ideas, with one main slide and three to five subsequent slides. Sequencing is a higher order thinking skill that demonstrates mastery of the content. As far as choosing from the bank of slide templates, wording your question with a number of details will quickly narrow their choices of which template they choose and save valuable time.

For example, an individual formative assessment I use with my ninth graders is to pick the favorite song of their main character and defend it. I like my characterization extension activities. The kids like music. Everyone is happy. I have done this in paper and in e-mail modes in the past. I will try something a little more complicated this year with my seniors. Students are already gathered in novel study groups. I will check progress and understanding by asking the groups to pick four songs that show the character's development through the story. Figure 8 shows one that I made for Raskolnikov from Fyodor Dostoevsky's *Crime and Punishment*. It took me 10 minutes to create this, and that includes selecting format and learning how to use the program. I could certainly do a similar activity with middle schoolers, but it would take them more like 30 minutes versus the 10 minutes my seniors will need. Students will e-mail me the link when they finish, and they can present on my whiteboard. Presentation mode is viewable here. Click the onscreen arrows to advance.

Prezi could also be an excellent brainstorming tool. With the logical progression dictated by the slides, students could organize their thoughts for an essay or organize information to study. If one design fits your assignment, you could print it out as a pen-and-paper graphic organizer for students who need concrete copies of their ideas. Creative, logical, and visual students all could benefit from these assessments.

**Interactive Whiteboard Manipulation**

Chances are, if you have an interactive whiteboard, you have accompanying software that lets you manipulate objects for demonstrations. Installing this same software on student computers allows you to create quick, interactive assessments for the students. Figure 9 shows an example of a typical five-minute assessment I give to see if we are ready for a quiz the following class. Students can drag the blue words with their mouse or finger into the blank that defines each term.

Clearly, this is just a tech update of a simple worksheet, which could work just as well. The advantage here is you don't have to make copies, and it's more fun for the students. I usually get several volunteers to come up and fix it on the board. For accountability, I walk around while they are completing and checking. I even have students e-mail their corrected page to me just to keep them honest. Walking around gives me plenty of time to see how they are performing. If students are having problems, I have a take-home, pen-and-paper assignment ready for reinforcement.

**But I Don’t Have an Interactive Whiteboard or the Software**

No worries. Sankore is a free downloadable program that lets you do most of the things the expensive software
information. They can also save the file and e-mail it to you for accountability. I use this kind of program often for many assessments such as grammar and revision. Kids can scribble and highlight with their mouse or fingers, and that makes grammar and revision much more engaging.

Admittedly, it will take you longer to create this than it will take the student to use it; however, you get to use it with all your classes and cut down on that much paperwork. Hint: Using your standard keyboard shortcuts will make it easier.

**Student Self-Assessment in Real Time**

Theoretically, the ultimate real-time assessment would be where the kids assess themselves and make necessary changes to improve their performance and understanding. Voki could be a cool way to implement this into your classroom.

Voki is web-based software in which you pick an avatar, make it say something, and either post it on your site for the students to hear or e-mail it to specific users (see Figure 11). This is perfect for language classrooms where kids have to master pronunciation and inflection. This assessment appeals especially to the auditory and visual learners.

In terms of real-time assessment, students listen to you pronounce the phrase, and then they repeat it until does. This took me a few minutes to learn—partly because the directions were in French and the controls tab seemed backward to me. But then it let me do pretty much what I wanted. I was able to make a science version of the aforementioned assignment in just a few minutes, which is shown in Figure 10. I grabbed the background image off the Internet from a public domain site. Then I drew circles and typed the planet names inside. (Yes, I kept Pluto as a planet. I’m still sad about its downgrade to dwarf planet.) Students drag the name circle next to the planet it identifies. Walking around the room is all it will take to tell who is on top of the
Old School but Streamlined

Sometimes, the old methods are the best. Take a standard assessment, tweak it, and make it a real-time formative. Consider, for example, the one-minute essay. In the middle of the lesson, pose a detailed question and give the students a very limited time to answer it. On paper, in an e-mail or text, or on a whiteboard, students have one minute (or two, or three, depending on your class) to answer. Making it a detailed question causes the students to think and show you they are making connections. For example, Who is the one character you blame most for Romeo and Juliet’s suicide? Explain why.

Students get all their ideas out on paper or a digital device. Then students can discuss the topic with authority. They’ve already thought about the issue, and they can match your delivery. You have the option to record your message with a microphone or by phone. You can also type it in so the computer reads it, but that would serve a different purpose. I recorded one using my cell phone here. My goal was to teach a Russian phrase each day during the Dostoyevsky unit. The kids like it, and it’s a cool beginning-of-class activity. I post it on my site, and they can access all the phrases anytime to review. If I were a Russian language teacher—and it will quickly be clear that I am not if you have any experience with that language—the students could use these to practice by themselves or in pairs. They would have the recording to gauge their own pronunciation, just like having a rubric for a physical product. They replay the recording and repeat their efforts until they master the sounds. Working in pairs may keep them honest. You, of course, can assess by walking around the room.

Voki’s site has suggestions on how to use this software in the classroom on longer term projects where kids create their own avatars and record their own voices, but I found that to be too time-consuming for our purposes here. Real-time assessment will require some time upfront to put your first avatar together. The free version allows you a more limited amount of avatars than the paid version, but the selection is still pretty large. (Important note: This program runs on Flash Player, which is a Microsoft product. If you are using a Mac computer, you will need to download the Rover browser, which is an early education–focused browser. It has magic Flash Player–like capabilities that will run this site on your iMac or iPad. There is no iPhone app yet.)

Useful Sites to Make Your Formative Assessments Go by More Smoothly

- **Remind 101**—Anonymous text reminders for students and parents
- **Near Pod**—Allows you to control all iPads in the classroom to direct them only where you want them
- **50 Best Teacher Apps**—Two lists of best apps for iOS and Android systems
you can really dig deeper into the topic. This question, by the way, would enable me to review and check understanding of nearly the entire play in terms of characterization, plot structure, irony, and other devices. It’s one assessment that measures understanding of multiple elements of our curriculum. This assessment is saving me time.

During discussion, students will probably paraphrase their essays because they are unedited free-writes. That’s perfectly fine. You have an idea where they are, and they see where they need to go. I know my classroom environment, and I recognize this assignment will cause anxiety in a few of my special needs students who have compulsive tendencies. I would talk to them quietly and adjust their time limit if necessary. Adapting to accommodate diverse learners is always part of the assessment.

In the old days, an extension for this activity would be that the student turns this into a full-blown essay. I would suggest that instead, you give this quick assessment several times. And after they have written a few quick essays, students choose one to turn into a longer essay as a summative. They will have learned and improved several concepts, but they will be graded on the one they feel the most confident proving. Choice is a powerful motivator.

**Experiment**

I’m a trial-by-fire kind of learner because teaching is a real-time formative assessment. If something goes wrong when you try one of these, that’s OK. It’s not necessarily a bad thing to show the students that you are a learner also, and sometimes you too need to practice and modify things before you are perfect.