Watch Ann Shannon explain some of these strategies.
http://vimeo.com/99536657

Three common actions to avoid when teachings ELLs

Cold calling

Cold calling is asking students to respond to a question without giving them time to think, to study, or to make sense of the situation. If our questions are worth asking, then our ELL students need to have time to think about how they might answer them.

Why is it important for ELLs that we avoid Cold calling them?

Before ELLs can feel secure enough to contribute to a discussion or answer a question, they need to be able to study the question or assignment, and would also benefit from the opportunity to discuss the item with a partner—in short they need study time.

GPSing

GPSing is telling students—step-by-step—how to solve a particular problem or carry out a general procedure, essentially acting like a GPS device in a car that gives instructions for getting from point A to point B.

This is a very powerful metaphor coined by Ann Shannon that allows reflecting on our teaching practice. Think about our own experiences with a navigation system (GPS). When we use a GPS device to get from point A to point B, we often arrive at our destination with no idea about how we have gotten there. Because we are following instructions (step by step), we are not learning about the terrain. We don't learn where we are with respect to landmarks and point of departure, and we fail to make connections to known locations. As a result we need the GPS device to go back home because we cannot conceptualize where we are and how to go back home.

Following a GPS is very different from studying a map or planning a route. When we study a map and use it to get from point A to point B, we develop knowledge of the landscape, resulting in long lasting memory because we must make sense and grapple with the terrain.

Teachers of mathematics far too often give ELL students instructions just as a GPS device would, by providing instructions turn by turn for the ELL student to follow blindly. And, just like in the GPS scenario, the ELL students do not have an idea how they got the answer and fail to make deeper connections with the mathematics at hand. There are many ways in which students can be "GPSed" in a math class; the three most common are:

GPS by Teachers: The teacher tells the students what to do, step-by-step.

GPS by Text: The assignment is written in such a way that it breaks a multi-step problem down into discrete steps.

GPS by Peer: Students are grouped heterogeneously so that students who are perceived as not struggling tell students who are perceived as struggling what to do, step-by–step.

In each of these cases, the ELL student who really needs the opportunity to learn is deprived of the opportunity to think, and instead becomes dependent on his/her teacher, text, or peers to dictate a solution.

Why is it important for ELLs that we avoid GPSing them?

ELL students need to be given the chance to think and to grapple with complexity. If the ELL student is just doing what the teacher says, or imitating the teacher, then the ELL will have little opportunity to learn.

Playing "Guess what's in my head"

We often ask students questions and then fish for a particular answer. We do this when we really want to tell students to do something, but we know the futility of telling students what to do. So rather than just tell students what to do, we try to get them to do what we want by playing the game "Guess what's in my head." This is a misguided form of eliciting answers from ELL students. We often see this in math classrooms when teachers ask questions that have a very specific answer (mostly one word or single phrase answers). When students fail to provide the one word or phrase that the teacher is expecting, the teacher then enters in an almost vicious cycle of "over-eliciting" in search of the word they want to hear from the students.

Playing "Guess what is in my head" is a covert way of GPSing students: it is leading them down a single, pre-determined solution path.

Why is it important for ELLs that we avoid playing "Guess what's in my head?"

We must avoid this with ELLs because it distracts their energy and attention away from the real mathematical work that will help them learn. Figuring out what is in the teacher's head is not a worthwhile endeavor. When teachers realize that they are doing this, they immediately want to break this habit. Instead of playing this game, teachers can instead try to engage their students in a productive struggle with mathematics.

Tactics For ELLs

1. Write up—on the board or on chart paper—what students say with his or her name attached. Keep these student-generated comments visible for the duration of the lesson.
By writing up what students say—for all to see—we represent in a written form what the student has uttered verbally. In turn, this written record calls for some form of re-voicing of the student's utterance. This is very helpful for ELLs, who might be struggling with English, because they can refer back to information provided by their peers and learn how other verbalize information. This also ensures that the ELL's comments are represented in a variety of ways:

- Verbal utterance
- Re-voice by teacher or peer
- Written documentation of ELL student's initial utterance with his or her name attached

When these written utterances are recorded and kept visible for the duration of the lesson, they will be available to the teacher and she/he will be able to reference them as the lesson moves forward. For example, recently I was in a classroom where students were ordering fractions and Milton, an ELL student, said the following:

> *Milton: I think that 8/10 is smaller than ¾ because 8/10 is two away from a whole but ¾ is only 1 away from a whole.*

It was clear that all of the other ELL students, with one exception, agreed with this erroneous statement. The teacher wrote Milton's comment on chart paper and invited all students to prove or refute the belief that 8/10 was smaller than ¾.

When Christopher argued that 8/10 was bigger than ¾, the teacher wrote up his explanation as follows:

> *Christopher: I think that 8/10 is bigger than ¾ because 8/10 is equivalent to 4/5.*

The teacher kept this running record of all of the ELL students' comments and brought them into the students' focus as the lesson progressed. Thus, the teacher provided an important *scaffold* for ELLs because she had created a way of making the cognitive demand of the lesson accessible.

With Milton's and Christopher's arguments recorded for all to see, the teacher could call on other students to say why Christopher's argument helped prove that *that 8/10 is bigger than ¾.* If these important student-generated statements had not been recorded, it would have been very hard for anyone —even the teacher—to keep track of what was said and work with what was said in a way that would support ELL students' reasoning as the lesson progressed.

Also, when it became evident that nearly the entire class agreed with Milton, the teacher was clear that she had identified a very common misunderstanding that was not going to be easily eradicated. It was important for ELL learning that, when the entire class had changed its mind and agreed with Christopher that 8/10 was indeed bigger than ¾, the teacher explicitly revisited Milton's explanation.

When the teacher records what each ELL student says in a written form, the teacher is actually creating a "map" of student reasoning. This map scaffolds for ELLs the cognitive demand of a whole class discussion and allows ELLs to build on and revise earlier statements as they grapple with a mathematical complexity.

2. Provide a written statement of your question or assignment instead of just telling students what you want them to do. Ensure that these written instructions are visible for the entire lesson.

When teachers provide written records of their questions or assignments, ELL students can revisit these as often as they need to in an attempt to figure out what it is that the teacher is asking them to do. Sometimes, it is difficult for ELLs to understand what a teacher is asking of them when the instructions are provided in English and only verbally. The written record allows ELL students to re-read their teachers' instructions time and time again; the written document also provides a very important *scaffold* for the ELL student. Moreover, if some ELLs forget what they were asked to do, they can look at the written record and get back on track. With the questions or assignments written and visible, students with stronger language skills can be asked to read these instructions aloud, paraphrase them, or even translate them into their own language. Finally, written instructions provide an important scaffold to the cognitive demand of the question or assignment.

3. Create *study time* for all ELL students so as to avoid cold calling

When a question is worth asking or an activity is worth assigning, it is essential for the teacher to give all ELL students time to study the assignment or question before they are called upon to contribute possible approaches, ideas, or even answers in a large class discussion. In order to provide study time the teacher can do each of the following:

- Write the question or assignment for all ELL students to see, in as many different languages as is possible or necessary
- Write the following in as many different languages as possible or necessary:

  This is your time to study so that you can prepare for a whole class discussion

- Read the assignment aloud, and ask a few other strong readers to read the assignment aloud also
- Organize students into heterogeneous language groups
- Ask the students to work individually on the assignment for 1-2 minutes (the purpose here should be for ELLs to have an opportunity to make sense of the situation and not to try to solve the problem yet)
- Ask students to work with a partner and share ideas (again, the purpose here should be for ELLs to have an opportunity to make sense of the situation and not to try to solve the problem yet)
- Call the whole class together and ask for volunteers

- Record students' name and their comments on chart paper

4. Expect to be listened to when you speak. For example, do not ask ELL students to copy down notes while you are talking, do not hand out papers when you are talking, and do not talk over ELL students who are chatting or off task.

Learning a new language is an overwhelming experience. Therefore, it is very important not only that we provide the support listed above but that we draw attention and focus to the resources available and the task at hand. When a teacher continues to talk to ELL students who are off task or also talking, the teacher communicates to the students that he/she does not have high expectation of them.

5. Create opportunities for ELL students to reconstruct or figure out a possible approach to solve a problem, instead of asking ELL students to remember steps of a template problem, or spending class time imitating a procedure you have just modeled.

ELLs come to us with a lot of prior knowledge that is encoded in their native language. It is important to provide them with an opportunity to activate their prior knowledge as well as to surface any possible misconceptions they might have.

6. Create an expert: A teacher creates an expert when he/she works directly with a student with the goal of turning them into an expert on something, no matter how small.

For ELLs, this will allow an opportunity for building schema by bridging prior knowledge and experience to new concepts and ideas.

Many ELLs have a difficult time feeling smart when they are faced with the daunting task of learning math in English. The risk is that ELLs might erroneously internalize a sense of themselves as someone who is not good at math. Therefore, this tactic encourages teachers to provide ELLs with the opportunity to experience themselves as strong learners of math and as students who bring a lot of prior knowledge to the table.

7. Once you have created an ELL expert, it is critical that the ELL student be witnessed as an ELL expert by the entire class. This tactic can be used to give a struggling ELL student a way to become visible in the classroom as someone who *can* learn.

This is important as a way of encouraging ELL students as viable learners of math. When other students witness ELLs as capable learners of math—ELL students will begin to see themselves as capable learners

8. Ask ELL students questions about their work so that you learn something about what is going on for them.

ELLs bring a wealth of prior knowledge to the table—we can all learn from this.