Effective Questioning Transcripts

Outside the Classroom - Consider the Math

Marian: But I want you to think about - is it that I want them to use a particular method? Or is it that I want them to be able to represent things in equations and figure out what they need or whatever.
And then you'll decide which it is and you'll go for that whichever it is
Okay, that's good.
Teacher: Okay
Marian: Okay - so have you changed anything from what I've seen?
Teacher: Not really
Marian: So, recognizing situations where writing algebraic equations will solve the problem and being able to solve an equation by isolating a variable...
Tell me why you would actually make your goal "isolating' - why is that a goal - as opposed to just solving the equation. Is it really important to you that they use the lingo of isolating.
Marian: If it's really your goal, then it is - and you've got to make sure that you ask questions that focus on it and if it was like I wrote this down but really that isn't what I did at all...
Teacher: Right
Marian: Then I think you should take it away from your goal because it is not going to be involved in the questions you are asking
Teacher: Okay
Marian: So you're going to decide whichever way it is for you.

Outside the Classroom - Plan Powerful Questions

Principal: I noticed that you and Krishna will be incorporating open questions and parallel tasks in the lesson.   Can you highlight how these are developed and how this type of planning helps students develop their confidence in problem solving skills?
Marian: It is really important for me to ask questions so that the kid who usually feels like "I don't know what to do" - doesn't feel that way.
I came across these two notions - one of them is to ask something where it really can go in a whole lot of directions.   I've actually been working with teachers a lot on taking a traditional question and just opening it up - and it's really not that hard. I was just playing with that the other day. So a teacher would take a really tight little question.   If it was something like "Solve this equation.   W"hat's the solution? We would say..."Okay you solve it, tell the kid solution is this, then ask them for the equation." So, if the solution is 2, and some kid could say "The equation is x equals two," and they are right. And they feel great because they are right."

So we've been playing around with lots of strategies that really work so that a kid does that and he feels good because she really got it or he really got it - but then there are a lot of other kids who say way more sophisticated answers and that kid who needs more time to learn gets that extra time. Because we have this obsession that everybody is learning the same things the same moment on the same day and they aren't all ready.

What it really is - it's kind of less of a departure for teachers. This is what would I usually do, but I know that I have a bunch of kids who will have trouble with that so I'm just going to pull out the trouble and give them the rest of it without the trouble and then we get the teacher to do what we call common questions that really work for both tasks.

What I've been finding that's really great about it - that is what you were talking about before - it really makes the teacher think about what's the big idea because you can't get common questions unless you are thinking bigger than the tiny little problem you were asking them.

So for me it's been kind of a win-win strategy because - its a win because I get kids feeling more confident and comfortable. But I also get teachers really thinking about what's bigger and more important and I've really liked the way works.

Outside the Classroom - Consider Student Engagement

Marian: So, that's a great minds on. Are your strugglers going to be okay with that?
Teacher 1: Well, then if they at least put in two different ways of plugging it in, one's going to be bigger than the other
Marian: Okay
Teacher 2: And you actually only gave them a choice of a few numbers...

Marian: This, I thought it worked. And maybe it worked because we were so clear about what the choice was and about what the differences were
Teacher 1: Right
Marian: And I asked a couple kids why they chose B; I didn't ask them why they chose A, because I knew why they chose A. I asked them why they chose B and it was mostly because they liked to pick. It was that simple!

Inside the classroom - Consider the Math

Teacher: Instead of writing - so Emily drew five tickets which is perfectly correct plus fifteen equals 45.   I said,   "Instead of writing five different tickets what could we do?" and Megan said, "We can have one ticket times five."
So why did we do that? Why does that make sense?

Student: Because it could make it simpler
Teacher: It could make it simple...

Inside the classroom - Pose Powerful Questions

1) Teacher: Can you use numbers to make a sentence with this equation? Look at it - think about it...
What if I changed it so that we have box plus heart equals triangle.
What if I put box plus three equals triangle - take a second, talk about it with your partner.

(2) Teacher: Why did the numbers that we used for the shapes change?
For this one, why is square, 1, heart 19, triangle 20
but for this one, square is 3, heart 4 and triangle is 7
what do you think?

(3) Marian: If you decide to do the first thing your problem is this: Five people went to the movies. They spent $15 for snacks, altogether they spent $45. And you have to tell me how much the ticket cost for the movie. You're going to have to figure it out, but you're also going to have to write an equation, just like you wrote equations up here that would help us see what's going on in that question.

Okay - if you decide to do the second one - listen to the second one - because this one is unusual. It says - some people went to the movies and spent some money at the snack bar. This is what's weird about this one - you get to decide how many people and you get to decide how much money they spent at the snack bar. The only deal is altogether you can only spend $45. If you do the first one, we told you how many people and how much money is spent on the snack bar. If you do the second one, you get decide how many people and you get decide how much money is at the snack bar, but you are all spending $45. Is everyone clear about what's different about them?

(4) Marian: I think ahead what can I ask to talk to everybody because
I want every single kid to feel they were valuable in this discussion.

(5) Marian: Did you end up spending more money on the movie tickets or on snacks?
How about you?
Student: On the movie
Marian: More on the tickets for her
Student: Snacks
Marian: Snacks for her, how about you?
Student: Snacks

Inside the classroom – Respond to Students

Teacher: So what are we trying to figure out Emily - what does the question ask?

Student: How many kids can share a pizza?

Teacher: So three slices - we know the number of slices.   We want to know the number of students...

Student: ...which is 4.

Teacher: to eat a pizza? We don't know this right away - does the question give us that?

Student: No

Teacher: Not right away, so what could we use to represent the number of students that can eat a pizza? The number of students - we don't know it, we can use...
What can we use instead of the number if we didn't know the number right away?

Student: A question mark or a shape or whatever

Teacher: Perfect - a question mark or whatever.   So we can use a question mark for the number of students. What would be our equation? Emily?

Student: Three times and I did a box.

Teacher: Okay   - so three times a box - so I'll put a box up here - yes?

Student: Equals twelve.

Teacher: Perfect! Three times box equals twelve.   And box is number of students to eat the pizza.

Student 2: Me and Erica did the problem differently.

Teacher: Okay - what did you do?

Student 2: At first, we really couldn't find an equation, so we took three, and went up by it four times, cause we just did 3, 6, 9, 12 which is four times to get to twelve.