To what extent is teaching dependent on the level of the student's ability? How does one adjust (if at all) one’s pedagogy with this in mind?

I believe that most students can learn the content I teach. The only current group of students I have that I truly feel may not be able to learn a great deal of the content is the FMD students. I believe you must meet a student where the student is currently at with their understanding of a topic and build upon that knowledge.

Do I believe that students build knowledge on previous knowledge (a constructivist approach)?

Yes, if you can attach new knowledge to old knowledge it will make more sense to the student.

What is the nature of classroom interactions between students and teachers?

Classroom interactions should be positive and cooperative. The teacher should be a guide to learning. I think the teacher should be real with her students and be willing to interact with them on a personal level. If I make a mistake on the board and a students points this out to me I thank them. If I’m a little grumpy one day I apologize the next. I want my students to know that I am human and make mistakes but my intentions for them are always for the best. I never want a student to feel I think I’m better than them. We are all in this learning thing together. I always want to encourage students and let them know I think the sky is the limit as far as their future goes.

To what extent do I use technology and should I use technology?

I use graphing calculators on a regular basis in my classroom. I would like to use these more but time constraints sometimes keeps me from going as in depth with the graphing calculators as I would like. I love the activities that I have gotten from ARSI and AMSP, I just wish there was more time to do them. I also have loved some of the software activities I have been exposed to in workshops but there just is not enough access to computers in our school. (We do have computers but they are used mainly for portfolio writing.)
To what extent do I use manipulatives and/or should I use manipulatives?
If I’m aware of a way to use manipulatives within a lesson I use them. I love hands-on learning. To me it is the best way to see connections. When I was in school we never used manipulatives. I was a good math student and could learn to follow the algorithms. And basically that’s what I thought math was all about. Even worse than that, I was not even exposed to manipulatives in the college classes that were preparing me the teach math to middle schoolers. I gained my knowledge of how to use manipulatives here at school from my colleagues and in workshops that I would attend during the summer. It was amazing. I began seeing these manipulative activities and my content knowledge grew. I was making connections and I wanted my students to see the same connections.

To what extent does the existence of a state-wide assessment (or NCTM standards) bear on style or pedagogy?
On the positive side I think that state-wide assessment and the NCTM standards are wonderful in that they changed the way teachers in this state teach. I feel now there is a direction on what to teach whereas before a teacher could pretty much pick and choose. Now no matter what school in Kentucky a child attends the same core content will be taught. I also like the fact that the CATS test aims for higher order learning. As I stated earlier I was simply taught a procedure to solve a math problem but not necessarily how this applies to real life or why we learn this or that. Not to say that my teachers were not good teachers it was just the way that math was taught then. (This was my experience. I’m sure there were teachers ahead of the curve back then.)

On the negative side I think that the core content and NCTM standards are too expansive. As a teacher I am required to teach the entire Program of Studies for a particular grade level within a year. I think we need to cut down on the amount of content covered within a year. We are not afforded enough time with each topic for the students to commit their new knowledge to long term memory and when the next school year comes they have forgotten what they had learned the previous year. At times I go on knowing that my students need more in depth practice with a topic. I find myself torn over
whether to spend a larger amount of time for the students sake or go on because I am suppose to “cover” all of the program of studies. I have discussed this considerably with other teachers over the years and I am finding that most agree with me. NCTM is going in this direction by using their new “Focal Points” but I feel until they make it the end all be all our state will stick with the core content which is a mile wide.

To what extent should students be responsible for their own learning? (Should students be assigned homework outside school and should there be a difference between regular ALG I and advanced ALG I?)

I believe homework should just be practice of what the students are currently doing in class. In that case the regular algebra students would be practicing what they are doing in class the same as an advanced class would be. I do not think that an advanced class should be piled down with problems just because it is an advanced class. We want to encourage students to take advanced classes not shun them because they require double the homework. Honestly, if you can do fifteen of a particular type of problem does it make you a better student if you do fifty?

I, personally, am not a big homework giver. I feel if a student works all day the evening should be for family and after school activities. As a society we are rushed! Rushed! Rushed! I think we are burning our children out. Why pile on an excessive amount of homework?? Does this really help us get through the massive core content faster?? At what cost?? I give very little homework other than if you do not finish in class take the assignment home or studying for a test.

To what extent does parental involvement change a teacher’s pedagogical approach. A parent on your side makes a big difference in a student’s effort in class and where there’s effort there’s an easier time teaching. I think that we have a lot of parent who mistrust teachers based on their experience as students. I’m not sure what can be done about this. I try always to be down to earth when talking with parents and show that I genuinely care about their child.
What role does the textbook play within my class? What role would you like it to play?

I use our current textbook as a supplement. Our textbook does not have a lot of hands-on activities included so I usually use the text as a source of problems. However, I have seen textbooks that I would use as my main source of teaching such as Connected Math. I actually use the Connected Math series a lot for problems and activities.

How does the tension between student discipline, attitude, and learning play out in the approach of the teacher?

There are certain things that I feel down play discipline and attitude problems within a classroom. First, I, as a teacher, have the power to set the atmosphere in my classroom. My attitude, whether positive or negative, greatly influences that atmosphere. So the first thing I need to do is have a positive attitude. Next, my students need to know what to expect. They need routine and they need to know what my expectations of them are. Third, plan! Plan! plan! The more I’m prepared the more smoothly the class goes and the less down time. Down time equals a discipline issue. And, of course, the more interesting and meaningful I can make a lesson the more involved my students will be and the more they will learn. This, of course, is my perfect world and some days are tougher than others and I have to regroup now and again. When I find myself getting irritated at a lack of effort on my students’ part I have to back away and work on my attitude. I can’t change the student but many times if I just back off and look at the situation in a different like there are things I can do to remedy the situation.

Is there a “rural nature to math pedagogy”?

I really have no thoughts on this subject. I grew up in a rural setting and have only taught in a rural setting. However, it is my belief that if a teacher understands a students culture and a teacher can attach a lesson to things familiar to a student that student is more likely to learn.