

Title of Session: Math Transformers

Moderator: Patricia Chen

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Room: Math Transformers Group

PatriciaCh: Maria ... please take the time to read the article from NCTM .. it is a file .. I put it in yesterday

PatriciaCh: while we are waiting to start

BJB2 . o O (in featured items, Maria. Do you see it?)

PatriciaCh: it is written for middle school ... but it is a good read

BJB2 reads it too

MariaRe: which one, there are so many?

PatriciaCh: look under FILES .. the first article

BJB2: Constructing Complexity for Differentiated Learning

MariaRe: okay, now I know which one.

PatriciaCh: thank you ..

BJB2: I would think the idea of determining what makes a task hard or easy depends on each child...and how they learn?

BJB2 . o O (visual, spatial, etc?)

PatriciaCh: more and more our classroom are heterogeneousnot homogenous ... at least in the secondary level

PatriciaCh: so we have different abilities as well as learning styles ... how do we reach the students

BJB2 nods.

PatriciaCh: and we have to make sure that students learn the material ... we are not even talking about the high stake testing

PatriciaCh: It is still the summer for most people we can start now ..

PatriciaCh: I teach middle school math in Florida

BJB2: are you back, Maria?

MariaRe: yes

BJB2: please introduce yourself to Pat....where you are and what you hope to teach

PatriciaCh: welcome

BJB2: I'm a retired art and communication teacher in Pennsylvania

PatriciaCh: what grade do you teach?

MariaRe: I am currently a student and working full time, so my calendar is full.

MariaRe: I work with Pre-k students.

MariaRe: in Texas

PatriciaCh: how is the pre-k program structured?

PatriciaCh: I was a Pre-K teacher ...many years ago ... I am sure it is different now

MariaRe: It's mainly a bilingual classroom.

PatriciaCh: do you work with the students on any sort of academics?

MariaRe: I work as the assistant to the teacher, so I just follow her lead.

BJB2: will you do that once you have your certification, Maria?

PatriciaCh: when I was in Pre-k ... we did the basics ... learning the alphabets ..recognizing numbers ..counting

MariaRe: I would like to teach pre-k or kinder

PatriciaCh: what sort of questions do you have for me

PatriciaCh: why only pre -k or kindergarten

MariaRe: I am currently working with pre-k, therefore I am comfortable with it, when I get more experience I will explore other grade levels.

PatriciaCh: that makes sense how long have you been working with pre - k

MariaRe: for about a year.

PatriciaCh: will you be required to student teach in another grade level

MariaRe: no, I will not even do student teaching because I already have the experience of being in the classroom.

PatriciaCh: oh ... I thought maybe your school may require exposure to other elementary grade levels ...

MariaRe: I wanted to ask, how do you teach the same material so that all the students understand, from the low to the high.

MariaRe: I realize that not all of them will be at the same level.

PatriciaCh: I am assuming that the students are not homogenous ...meaning .. you have the different levels

PatriciaCh: school districts are heading in that direction ...

BJB2 . o O (a lot depends on parents too and how much time they spend with their children)

MariaRe: yes, they are assigned to the teachers based only on language, not academically

PatriciaCh: I teach math ... but the way I teach it ... depends on the make up of the students... meaning ..with some classes .. I have to give more examples ..practice problems

MariaRe: so it is wise to send a lot of homework.

PatriciaCh: yes and no ...

PatriciaCh: after I teach a lesson ... the students start on practice problems ... I circulate around...

MariaRe: so what happens when they are all mixed into the same classroom

MariaRe: the highest along with the lowest

PatriciaCh: eventually .. I group the kids ... so they can peer instruct each other

MariaRe: how do you pair them up?

MariaRe: low with low and vise versa

PatriciaCh: yes ... with mixed groups ... so kids will understand ... they can help others ... as the teacher ..you can have small group instructions

PatriciaCh: no ...high and low

PatriciaCh: actually ... in middle school ..the kids will pair themselves

MariaRe: but, won't they choose their friends?

PatriciaCh: I make sure the high achiever ..does know the material ... and they usually offer to help someone else

MariaRe: does this affect the low student's self esteem?

PatriciaCh: sure they will but I tell them to choose wisely some will choose the friends and find out they did it wrong .. and learn their mistakes

MariaRe: knowing that another of his peers is smarter that them

PatriciaCh: actually ...the low ones help the high ones too ...

PatriciaCh: I don't emphasize that there is only one way to do solve certain problems ...

PatriciaCh: most of the learners in the classroom ... are on the same level

MariaRe: so there are many ways to solve math problems.

PatriciaCh: most kids are okay with it

PatriciaCh: yes there is ... I tried to have several students explain how they arrive at their answers ... the kids are amazed at the different methods

PatriciaCh: also in middle school ... the kids accept that certain friends do have a better grade than he or she ...

MariaRe: wow, all this time I thought there was only the teacher's way

PatriciaCh: esteem issue is more apparent in elementary ... the competitive issues in high school

PatriciaCh: not in my classroom ...

MariaRe: so it is wise to let the students come up with different ways to solve problems.

PatriciaCh: the make up of my students are students who are mainstreamed and low level learners to the gifted (they are in their own bubble)

BJB2 agrees very strongly on that

BJB2 . o O (different ways to problem solve)

PatriciaCh: yes ... to that ... because ... some teachers will do as what you wrote ... that hinders them .. and that will cause them to feel like a failure in math

PatriciaCh: problem solving ...prior knowledge and experience will influence how a student may start to work it out

MariaRe: I agree, because I am not very strong in math and sometimes it is very challenging

PatriciaCh: once the kids are used to the idea of different way to solve a problem ... they are more successful

BJB2 . o O (this carries through to all disciplines)

PatriciaCh: when I ask for answers I don't tell the student if the answer is correct or not ... I merely ..ask if anyone else has an answer

MariaRe: I usually don't like math because there is only one right answer

PatriciaCh: it drives them crazy at first once I acknowledge the correct answer ... I ask each of them ..how they got the answer ... you will hear different strategies

MariaRe: do you make students show their strategies on paper.

PatriciaCh: yes there is only one correct answer ... but if you show your work ... I can tell you where you got derailed

PatriciaCh: showing work is important ...

BJB2: with the little ones you can give them a set of blocks or objects and have them show you how many different ways they can show you x number of blocks

PatriciaCh: I don't assign a lot of problems ...just a sprinkling of easy to challenge

PatriciaCh: I look at their papers every night

MariaRe: you mention night, do you have a lot of homework?

PatriciaCh: or have the kids draw it out

PatriciaCh: I give homework every night ... about 10 -12 problems ..

MariaRe: I like to work with the blocks, it seems that they relate to them better.

PatriciaCh: I go over them the next day ...collect the papers and check their work

PatriciaCh: also with word problems ... I encourage the kids to draw it out a picture helps

MariaRe: pictures do help, some of the students learn visually

PatriciaCh: don't forget ... I am in middle school ... so early childhood ... the homework will be different

PatriciaCh: also pictures help the kids to reason things out ... and help solve the problem

MariaRe: do the teaching styles differ now from 10 years ago?

PatriciaCh: that is why there are many different ways of solving the same problem

PatriciaCh: I think educators are more aware of the different learning styles ... and also classes were more homogenous ...everyone was grouped

PatriciaCh: we are getting away from that now

MariaRe: good, it is more challenging that way

PatriciaCh: except for the exceptional students

MariaRe: do you mean the gifted ones

PatriciaCh: it is more challenging ...but more work on your part as the teacher

MariaRe: they keep the teacher on her toes.

PatriciaCh: gifted ones and ESE ...

MariaRe: what is ese?

PatriciaCh: those kids are still grouped

PatriciaCh: ESE are kids with learning disabilities ... some are mainstreamed ... and some the parents want the kid to stay in the bubble

PatriciaCh: it is all according to the abilities ...

MariaRe: okay, here in Texas they are all mainstreamed I believe.

PatriciaCh: we do not have a gifted math program in our district

PatriciaCh: Some students are not mainstreamed in our district

PatriciaCh: starting with this year ... high school algebra is offered in 7th grade and geometry in 8th ... this takes the place of gifted math

PatriciaCh: not only in math that is why differentiated instruction is so important ...

MariaRe: so then what happens to the 7th graders that are ready for geometry

PatriciaCh: geometry is part of the course work ... but the 8th grade class is for high school credit as well ...

PatriciaCh: I meant to write ... there is geometry concepts in the high school algebra class as well

JeffC: my son took geometry in 8th grade... as a matter of fact... so did I.. about 40 years ago.

MariaRe: so they work on credits, because here we have some high school kids taking college courses already

PatriciaCh: that is the idea ...allow the students to earn the creditsso they can start on college work in high school

MariaRe: by the time they graduate from high school, they already have an associates degree

MariaRe: it's probably the same thing.

PatriciaCh: the only pit fall is some parents push their kids before they are ready

MariaRe: I agree very strongly with that.

PatriciaCh: well the child doesn't get the A that they were used to it hurts them

PatriciaCh: some kids are bright but as committed to studying as they have to be

PatriciaCh: I taught the gifted this past year at the end of the school year ... the kids admitted it was hard most of them thought it was going to be an easy A ...

PatriciaCh: as a teacher ...you can only do what you can

MariaRe: I agree

JeffC: my son's Geometry class was given high school credit on a weighted scale... where getting a "B" was ostensibly the same as getting an "A."

MariaRe: that's a good idea, it won't affect their esteem.

PatriciaCh: it is not like that in our district ... when algebra as high school credit was first offered ... it was counted in the GPA regular class work ...not honors as it should have been ... but that has been corrected

PatriciaCh: so middle school A is an A in high school ...

MariaRe: great!

PatriciaCh: the other way around ...it messed up the kids GPA ..due to the weight ...now it is on par with high school

PatriciaCh: the kids learn fast that they have to work harder ...and be more focused

MariaRe: is it fair, I mean the gpa

PatriciaCh: yes ... the kids learn fast how important it is to maintain a decent GPA

MariaRe: if you want to be in the top 10% of your class, gpa is very important

MariaRe: it will get your college paid for.

PatriciaCh: and these are the kids who want to attend the university

PatriciaCh: oh yes ... that is what I try to impart to my 7th graders

BJB2 looks at the clock on the wall

PatriciaCh: yes ... time has flown by

BJB2: Thanks, Pat!

PatriciaCh: Thank you for attending

BJB2: and thanks for your participation, Maria and Jeff.

PatriciaCh: I look forward to chatting with you all next month

MariaRe: thank you guys!

PatriciaCh: Using Literature to teach math

PatriciaCh: Sept 15th is good

BJB2: great! one of my favorite topics :-)

PatriciaCh: Maria ... using children stories are a great way to teach math

MariaRe: thanks for the tip.

PatriciaCh: it is also a way to differentiate instructions ...

PatriciaCh: there are so many different things one can do in the classroom

MariaRe: especially with the little ones

PatriciaCh: oh yes

PatriciaCh: I will see you all on the 15th

BJB2 waves bye and heads for K-3

MariaRe: bye!

PatriciaCh: good night