

Title of Session: Math and Technology Ed

Moderator: David Weksler

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Room: Math and Technology Education Group

DavidWe: Randy, is there anything in particular you would like to talk about, learn about, etc?

DavidWe: Looks like we will be a small, cozy group this evening

RandyZ: Nothing in particular. I am a technology specialist and am working with a group of math teachers this year. Interested in any ideas or strategies. Not a math teacher myself.

BJB2: maybe we should take a field trip to Math Meets Here, David?

DavidWe: Sure thing

BJB2: let's go out to the lobby and see if it's featured there

DavidWe nods

BJB2: Randy, click on OUT TO TI 3 LOBBY

BJB2: in the top left of your screen

DavidWe left the room.

RandyZ left the room.

BJB2 left the room.

Room: TI Groups Lobby

BJB2 joined the room.

DavidWe smiles

DavidWe: We're HERE!

BJB2: yep...now scroll down on Featured Passageways

BJB2: to MATH MEETS HERE

BJB2: and click on the door

DavidWe left the room.

BJB2 left the room.

Room: Math Meets Here Group

BJB2 joined the room.

BJB2: good job, Randy

BJB2: take a look at some of the resources the room has, Randy

DavidWe has a question for Randy

BJB2: this would be a good group for your teachers to join

DavidWe: What technology do the teachers you work with use (if any) for math?

RandyZ: graphing calculators, geometer's sketchpad, explore learning gizmos, interactive whiteboard.

RandyZ: some of the resources look familiar too like the virtual manipulatives

DavidWe: sounds like a good bit of ed. technology

DavidWe nods

RandyZ: yes...those that actually use it...there are pockets...not uncommon.

DavidWe: In what ways are you trying to support what they are doing? What questions do you typically get from them?

RandyZ: The group that I am working with this year has some common goals...mostly to make instruction more student centered. They know they are stand and deliver math teachers and are looking to change that....so technology can be a catalyst.

DavidWe nods

RandyZ: What is good is that they want to change.

DavidWe: I'm trying to understand what your role is with respect to these teachers and how we may be able to offer some ideas, some support, etc

DavidWe: Yes, that is a BIG step

RandyZ: ah

RandyZ: lol

DavidWe smiles

RandyZ: I basically provide the professional development that focuses on teaching practice...with of course the use of technology. While I do deal with developing technology skill....we do this, when needed, in the context of what they want to achieve.

RandyZ: we typically do this in a small group working together and then I help in the classroom whenever needed....but that certainly isn't always

JasonDe joined the room.

DavidWe: What's your own experience with teaching practice? Do you like problem/project-based learning, having students work in groups, something else?

BJB2 waves hi to Jason

DavidWe waves to Jason

DavidWe: Hi, Jason. Welcome

JasonDe: thank-you

JasonDe: sorry I'm late

DavidWe: You're welcome to join us, Jason

JasonDe: great

DavidWe: We're just going on a brief tour

DavidWe wonders if we ever did introductions and whether we should do them now, for the record

BJB2 thinks that would be nice

RandyZ: yes...definitely project/problem based learning. Instruction that is student centered with guidance and structure from the teacher.

RandyZ: I haven't worked much with math until this year....hence my visit tonight.

DavidWe: I'm David Weksler. I've been using Tapped In for close to 8 years and I was part of the development of the Math Forum - www.mathforum.org - when it began at Swarthmore College in 1993. I help teachers learn more about educational technology

DavidWe . o O (and I'm in Bucks County, PA, at the moment)

DavidWe: I appreciate your visit, Randy

RandyZ: I think has unique challenges....more abstract...harder to make 'real' to kids in some cases.

JasonDe: I teach grade one in Ontario, Canada.....very interested in integrating technology into my math program

DavidWe: Oh, cool, Jason. Have you met Susan R (Roseman) yet, in Tapped In?

BJB2: I'm an art teacher in Pennsylvania

JasonDe: yes

DavidWe: BJ and I are both Help Desk volunteers for Tapped In. We met for the first time....oh, geez, a while ago at the Hershey Hotel

JasonDe: and I have learned a lot from Sue

DavidWe passes around the chocolate

JasonDe smiles

DavidWe: Are the teachers open to that style of teaching/learning, Randy? Are they having to make adjustments?

SusanR joined the room.

BJB2 waves hi to Sue

DavidWe: Hi, Susan. Chocolate?

SusanR: Thanks..

DavidWe . o O (3 of us are in Pennsylvania, so it's Hershey's)

RandyZ: They are open to it....and I'm trying to help them get there.

DavidWe: I was with a rather large group of elementary teachers on Saturday at Bank Street College of Education looking at some issues around young kids and numeracy

RandyZ: getting away from stand and deliver math instruction...

DavidWe nods to Randy

DavidWe: That's the big challenge. Teaching in a way that is new to you. Many people tend to teach the way they were taught

RandyZ: yes...and math teachers being typically very type A...lol

DavidWe smiles

DavidWe: They can be.

JeffCoo joined the room.

DavidWe: Mr. Coo, hello

BJB2 waves to Jeff

RandyZ: So how do you folks teach math?

DavidWe: Me?

JeffCoo waves

JeffCoo: I think David still uses his fingers (toes when necessary).

RandyZ: what things work where technology is concerned? What teaching practices prove most productive?

DavidWe: Well, I usually DON'T in fact, teach math, but can I share with Jason and Susan and Jeff the web page I showed you before, with my niece's FLASH construction?

RandyZ: of course

SusanR: sure

JasonDe: I keep it real - problem solving that my students can relate to.....their world

DavidWe: Having an interest in letting the kids GO with the technology

DavidWe: <http://www.eskimo.com/~wex/1+1.swf>

JasonDe: would love to see it

DavidWe: I think that's right

DavidWe: My niece took a week-long course on using Flash

DavidWe: She started the $1+1 =$ thing and then we tried to make it a bit more interesting

DavidWe: She did all the work, though

SusanR: cool

SusanR: what grade

DavidWe: It just cycles, so close that window when you have had enough

DavidWe: She's in 9th grade taking both algebra and geometry at the same time. She's come to think that MATH is cool

DavidWe: So, I guess, Randy, one of the things is that with the available software - ESPECIALLY Geometer's Sketchpad - giving students the opportunity to be creative with it is pretty powerful

SusanR: Jason..you teach grade ____....refresh my memory

DavidWe . o O (1)

DavidWe: I guess, ultimately, Randy, I see teachers having a toolbox which they bring to the classroom

DavidWe: Knowing how to use the tools is important

DavidWe: Letting the students learn about the tools when trying to do something seems to be where the action is

RandyZ: yes...and I've seen that in the classroom. Initially there can be some resistance from students because they are so use to being given the information and applying it to a few problems.

DavidWe: If the tools are compelling (and fun) to use, then a lot of learning will just happen

JasonDe: grade one now.....I started the year with a 1/2

JasonDe: math is everywhere

DavidWe: Jason and Randy do you know about the Math Forum (first)...
www.mathforum.org

SusanR: taught grade 1 for 5 years..loved it

JasonDe: alright.....a combined grade one and two class

DavidWe: And more particularly, the part of the Math Forum called MathTools

DavidWe: . o O (www.mathforum.org/mathtools)

DavidWe: It is almost an entire math environment with largely JAVA-based applets for teaching many different concepts, along with discussions and interactions with other teachers. You can join as a member for free which has certain advantages

DavidWe: It is one of the big repositories for online resources, like virtual manipulatives

DavidWe: Although for Grade 1, REAL manipulatives are probably preferable

JasonDe: absolutely

DavidWe: Jason, do you know about the Math that comes from the Lawrence Hall of Science - Family Math, for example?

RandyZ: looks nifty...thanks!

JasonDe: no

DavidWe: Take a look at:

DavidWe: <http://www.lawrencehallofscience.org/>

DavidWe: They do some really great things, especially for young children

DavidWe: Here's the specific page for Family Math (part of a bigger project called EQUALS)

DavidWe: <http://www.lawrencehallofscience.org/equals/>

DavidWe: Actually this is a better description of Family Math:

DavidWe: <http://www.lawrencehallofscience.org/equals/aboutfm.html>

DavidWe will stop pasting in URLs

DavidWe waits for questions/answers/more chocolate

JasonDe: looks good

DavidWe: It's a fantastic program that really makes the effort to help parents help their own kids with simple math exercises that occur in everyday living

JeffCoo: Personally... I don't really know about the value of manipulatives. When I started second grade I was adding three digit numbers the first couple of weeks. My daughter is still struggling adding $8+9$.

DavidWe: Those folks at the Lawrence Hall of Science also have the best offices in the world - high up on a hill above Berkeley looking west at San Francisco, the Golden Gate Bridge and the Pacific Ocean

DavidWe: How old is your daughter, Jeff?

DavidWe: I think manipulatives were just fun for me. Cuisenaire rods

DavidWe: I think I did the arithmetic in my head, though, I was good at mental arithmetic

DavidWe: I'm guessing you are either exploring parts of those web pages that have been mentioned, or you have gone out for dinner

DavidWe: Let me share one more web page and tell you that we hope that have a fuller discussion about it. All I know is the address and that I'll be speaking with the developer of this cool combination of math and music on Thursday

DavidWe: <http://musicalgorithms.ewu.edu/>

DavidWe: Bj and I just met Jonathan Middleton, a music professor at Eastern Washington University on Sunday

DavidWe: He's come up with something that sounds really cool, but I've not even clicked on anything on that page

RandyZ: interesting...

SusanR: music and math learning appear to be closely related

DavidWe: Yes, Randy. I thought so, too

DavidWe smiles

JeffCoo: Bach thought so I believe

DavidWe nods

SusanR: music helps student's abstract reasoning skills supposedly

DavidWe guesses Bach would have scored highly on the math portion of the SATs

DavidWe: There's research to prove that, even in mice/rats solving mazes

JeffCoo: guesses that eminem will have to rap a Bach fugue to get the kids interested in it.

DavidWe: Okay, so what would you guys (mostly I'm directing this at Randy and Jason) like to see in these sessions?

DavidWe: Jeff runs a K-20 math resources session the first Tuesday of the month

DavidWe: We're always trying to make the information and discussion valuable to the participants

JasonDe: websites/ resources that will help us to integrate the tech into our program

DavidWe nods

DavidWe: Jeff, want to share the big list of bookmarked Math (and Science) sites or did that vanish?

DavidWe: Each discussion group typically has an associated Group Room

DavidWe: Unlike my room for MathTechEd, most people have spent some time outfitting the room with links to other resources, interesting graphics, etc.

DavidWe: Jeff has put a lot of work into both his Math and Science resource rooms

DavidWe: Do we know how/why?

JeffCoo: however... I still have quite a few on my own bookmarks page...

JeffCoo: <http://www.mybookmarks.com/public/coops>

DavidWe nods

JeffCoo: mybookmarks server went down for a week... when it came back... *poof*.

DavidWe: bummer

JeffCoo: I had my own on my computer, so I was able to upload them... I didn't have the same for the math/science links though.

DavidWe: Maybe we can figure out a way to back stuff up (either online or off) in the future as you rebuild it

RandyZ: this has been useful...thanks for sharing some things that are new to me.

RandyZ: that is always good!

DavidWe: You're more than welcome, Randy

SusanR: check out the K to 3+ Resource Room..and open up the math folder, Jason

DavidWe: Please do let us know if there are specific things that we can focus on.

DavidWe: I was more or less winging this with so few people logged in this evening

JasonDe: will do.....without leaving this discussion....once again!!

SusanR: after this session of course, Jason

DavidWe nods to Jason

RandyZ: will do....as the year goes on and I get deeper into this with these math folks I'm sure I'll have some questions.

DavidWe checks the clock on the wall

DavidWe: Again, Tapped In is, among other things, a community of practice

RandyZ: yes

DavidWe: We try to be a place where people can come and puzzle out what they are doing with other educators

DavidWe: virtual support group

JeffCoo: <http://www.setgame.com>

JeffCoo: just thought I'd throw that in for fun

DavidWe smiles

DavidWe: Do you all know about SodaPlay?

JeffCoo: try the daily puzzle

DavidWe: www.sodaplay.com

DavidWe . o O (just for fun)

DavidWe: In any event, thanks to all for joining in this session

SusanR: your day may vanish into thin air if you get involved with sodaplay

JasonDe: thank you and good night

DavidWe: I'll be staying online, but feel free to go and explore other stuff

DavidWe: Goodnight, Jason

RandyZ: thanks...till next time...good night.

DavidWe: Take care, Randy.

DavidWe waves

DavidWe: Thanks, Bj, Jeff, Susan