

Title of Session: Math and Technology

Moderator: David Weksler

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DavidWe: I'm not sure if any of you saw it, but one of the images that was central to the Visual Geometry Project (preceded the Geometry Forum at Swarthmore - a long, long time ago, in a galaxy far, far away)...

DavidWe: Kepler's drawing of the orbits of the planets that he thought might be in concentric spheres circumscribed about the Platonic Solids...

GailH . o O (the VGP)

DavidWe: It was in the New York Times last Tuesday as an illustration of an article describing a retired General Motors physicist who lives in...GENOA, Nevada....I like that...

IhorC left the room.

DavidWe nods about the VGP to Gail

DavidWe: Ooops, bored Ihor already

DavidWe: His name is Wayne Daniel, according to the New York Times

DavidWe: Anyway, he built this model of the 5 platonic solids so that they nest inside each other - like Russian dolls

DavidWe: Pretty amazing.

IhorC joined the room.

DavidWe: He made 20 sets and they are for sale for \$400 each

DavidWe: tetrahedron inside octahedron inside cube (hexahedron) inside dodecahedron inside icosahedron

DavidWe smiles

DavidWe: Pretty impressive woodworking, too

GailH . o O (David is typing big words to make it hard for me with my eyes tonight.)

DavidWe: I'll type in one other interesting bit from the article

DavidWe uses smaller words for Gail

DavidWe: and spreads them out

IhorC: David - have you told everybody about the math and technology Birds of a feather at NECC?

DavidWe: "In one puzzle of which he is especially proud, the pieces fit together to form a Mobius strip, an idea that emerged while he was stuck in commute traffic and set himself the task of designing a puzzle wholly in his head.

GailH wishes she was going.

DavidWe: I've not yet done that, Ihor...

DavidWe: Why don't you say something about it?

DavidWe drinks some more water

DavidWe: Bj will be at NECC and I think she knows

DavidWe: Gail is taking a break from major conference appearances

IhorC: Weren't you supposed to come up with a draft of the flyer?

DavidWe was supposed to do this today

IhorC: Any progress?

DavidWe: But as I was preparing INTENSELY for this presentation, somehow I let it slip

DavidWe smiles

DavidWe: More coffee, anyone?

DavidWe tries unsuccessfully to change the subject

DavidWe: Well...as for our BoaF session at NECC...

IhorC: The BOF session will hopefully get people talking about important issues in math and technology

DavidWe: We want to highlight some aspects of what we are all doing - in Tapped In, at Steven's Inst. of Technology - www.ciese.org - where Ihor works

DavidWe nods in agreement

DavidWe: The Math Forum is doing a day long workshop on Sunday 6/26 on the MathTools, the Forum, Sketchpad, etc.

IhorC: and there is mindinstitute.com

DavidWe: I hope that goes well, but I wonder if the day long workshop format limits the attendance, but....

IhorC: music and math. Is that right?

DavidWe: Yes, we are also including this interesting group, The Mind Institute, from Costa Mesa, California

DavidWe: Take a look at this web page for a brief overview:

DavidWe: <http://www.mindinstitute.net/MIND3/mst/overview.php>

DavidWe: But they have developed an interesting K-5 Math + Music curriculum (M & M)

IhorC: It will be interesting to see who shows up. I'm one of the facilitators for the Mathtools session.

DavidWe: Yes, Ihor has his finger in several pies

IhorC: Math Forums Math Tools session that is.

DavidWe: There's actually a lot of very interesting stuff going on, probably more and more, but I'm also sure that things like NCLB has really dominated the educational scene in many areas

IhorC: I will be sharing some of my fraction microworlds at the session.

GailH: I think the all day format will be fine -- people who know the quality of MF will come, for sure.

DavidWe: I'd be interested in hearing (I'll check the program) if there are folks with an opinion of what sort of impact NCLB has had on the continued introduction and use of technology in schools

DavidWe: Absolutely, Gail

IhorC: I've been thinking a lot about fractions lately and why they are difficult to learn.

DavidWe: Want to talk about it some, now?

EmilyW: why are they difficult to learn?

DavidWe: Gail is a good listener

DavidWe: . o O (Bj and Emily, too)

IhorC: Well if you insist I'll share a bit

DavidWe: Thanks for joining me this evening, everyone, by the way

DavidWe: won't insist, but hopes

EmilyW: can only stay for a little longer

DavidWe: I would like to see if I could get the Mind Institute folks to join in a Tapped In presentation, but I'm still working on that

DavidWe: No problem, Emily, but thanks

IhorC: children are reasonably comfortable with counting, doing addition and subtraction of whole numbers.

DavidWe: nods

IhorC: Then they are almost overnight confronted with operations with numbers that are based on proportional/multiplicative thinking

IhorC: Since most adults/teachers know the rules for how to work with fractions

IhorC: they assume that a logical presentation of fractions is the appropriate way to introduce them.

DavidWe: listens

IhorC: Most textbooks do this... logical presentation

DavidWe: logical to adults who wrote the text, at least

DavidWe: smiles

BJB2: David, what is the url for NECC?

IhorC: Unfortunately the many forms that fractions comes is confusing...

GailH: <http://www.enc.org/resources/records/full/0,1240,009003,00.shtm> is a great (print) resource about teaching fractions.

DavidWe: www.neccsite.org

DavidWe: that's for the general conference page

IhorC: What's needed are lots of activities that relate to children's previous experiences of number and help them understand that fundamentally that all numbers whole or otherwise are masters of disguise.

DavidWe looks at Gail for the "lots of activities..."

DavidWe: I would have to guess that I could find at least 50 resources for fractions at ENC

DavidWe . o O (also from the Forum, but...)

DavidWe wonders about "masters of disguise"

GailH: There are, but that book has real good stuff. I "selected" it for a major project.

DavidWe nods

IhorC: My favorite all time animated math movie is something called the Weird Number that simulates a town inhabited by numbers who discover they can take on different forms.

EmilyW: what type of activities?

IhorC: One - the Mayor - discovers that he can be $5/5$, $6/6$, etc.

DavidWe has watched Ihor watching "Weird Number" in Elizabeth, NJ

DavidWe likes "Donald Duck in MathMagic Land" too

IhorC: Diane Resnek was one the authors of the movie

IhorC: Here's a challenge for me.

EmilyW waves bye to all

EmilyW starts planning a website about fractions

BJB2: quilt patterns are a cool way to learn about fractions

IhorC: I have to learn how to speak in tappedineze....

DavidWe: You're doing fine

IhorC: I'm not good at it.... By the time I type a sentence 5 other things have happened to distract.

DavidWe understands that issue

DavidWe: Just roll with it....AND TYPE FASTER!!!

DavidWe smiles

IhorC: With these old hands?

BJB2: did you detach your chat, Ihor?

DavidWe: Like traffic in NYC, just have to expect the unexpected

IhorC: Yes, I'm detached in more ways than one.

DavidWe Laughs

DavidWe: LOL

BJB2 nods solemnly

DavidWe hugs Ihor

IhorC: It's easier in NYC traffic.

IhorC: I lived and drove around for 15 years.

DavidWe: Well, we're getting your "tapped in mileage" up there

DavidWe: It's like flying a plane - you have to log enough hours to get your license

IhorC: With tapped in I barely have my feet wet....

BJB2 gets a bucket

DavidWe: NECC is in San Diego, next year, I think. We can go to the beach. I know a cool place in La Jolla

DavidWe smiles

IhorC: It's more like building a plane while you are flying it.

DavidWe: Whatever analogy works best, do feel free to use it

DavidWe . o O (Out of the frying pan, into the fire)

BJB2: how are your eyes, Gail?

IhorC: Actually I'm looking forward to NCTM in St. Louis next year

GailH . o O (blurry still)

GailH: Have you been going to NCSM too?

DavidWe: Me, too. I'm going to go (I hope). I've never been to St. Louis. Ferdi and his family and I drove around it. We could see the arch, but that's about all

IhorC: no not really.... I find research presentations tedious

DavidWe: We stopped in East St. Louis for gas. Miles Davis is from there, but that's about the only positive thing. Not a great place

DavidWe: But the folks at NCSM are the movers and shakers in some respects

IhorC: Depends on what you mean by great.

GailH: NCSM is definitely not research!

DavidWe: Research presentations are boring, by the way, for the most part

GailH: At least many of the sessions -- the ones I go to and give.

IhorC: I grew up with Stan Musial and the cardinals

DavidWe has enjoyed the NCSM sessions he has presented at and attended

DavidWe: Well, I've never been to a baseball game in St. Louis either - since I've never been to St. Louis

GailH . o O (NCTM has an research-based pre-session that is research.)

IhorC: There you go again.... evaluating something you don't know.

DavidWe: Did you want to talk some more about fractions, Ihor?

DavidWe: me?

IhorC: I think only 1/2 my brain is operating at this point.

DavidWe nods

DavidWe: But what a brain it is!

DavidWe: Gail, how many folks work currently at ENC?

DavidWe . o O (in Columbus)

GailH: About 35 (all are in Columbus).

DavidWe nods

DavidWe: Has that been about the size of the staff since the start?

DavidWe: Or did it grow a bit...?

GailH: It grew for the first 5-6 years, then held steady for long time, and has now dropped to that number.

DavidWe: at the height, how many?

DavidWe: 50?

GailH: yes

DavidWe nods

DavidWe remembers meeting Len Simutis at BBN in Cambridge a long time ago

GailH: He is Exec Director.

DavidWe nods

DavidWe smiles

DavidWe: Are the regional demo centers going to be maintained?

GailH: no

DavidWe nods

DavidWe thinks we should put in a proposal to the Gates Foundation

GailH: Please do!

DavidWe: Well, folks, I can prattle on, but Gail is blurry, Ihor is bleary and Bj is probably just tired, so...

DavidWe smiles

DavidWe: More coffee?

DavidWe: Thanks for coming, in any event.

GailH: Thanks for understanding my blurs.

IhorC: That's after you finish the flyer for the NECC BOF

IhorC . o O (smiles)

DavidWe: I'm happy to talk about fractions, funding non-profit organizations or the European Champions League soccer final, but...

DavidWe smiles

DavidWe: Hey, we're all veterans here

DavidWe hands out Purple Hearts for Math awards

DavidWe: And Memorial Day is coming - you will want to look your best for the parade

DavidWe: So, off you go, folks

GailH: Thanks, David.

DavidWe: Have some dinner, get some rest. Everything will be clearer in the morning

DavidWe: Thank you, Gail

DavidWe . o O (take two aspirin, my Mom would say)

GailH: I know.

DavidWe: She's a doctor!

DavidWe: She knows

IhorC: Wasn't that Walter Cronkite's sign off?

DavidWe: "And that's the way it is, Tuesday, May 17, 2005..."

IhorC: that's better...

DavidWe: This is Walter Cronkite, CBS News, Goodnight

DavidWe smiles

DavidWe bows

GailH: Goodnight!

IhorC: See you in blogland