Title of Session: Targeting Librarians - Problem Solving and Technology
Moderator: Lesley Farmer
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Room: Cybrarians Group

LesleyF: Here to talk about problem solving and technology?

HeatherBu: I'm not a librarian, but I'm working hard to learn how to integrate tech on all levels for my middle school kids

LesleyF: very good! are you the tech coordinator?

HeatherBu: I wish. I'm the sole tenant of the MS tech department

LesleyF: so that makes your the tech coordinator...

LesleyF: titles are fun to create

HeatherBu: I love it! My lab and our library are the repository of Win98 machines...

LesleyF: lucky you

HeatherBu: running on 32 mb RAM, but they do all have internet connections

LesleyF: what is your Internet speed/bandwidth

LesleyF: 32???

HeatherBu: Yep, 32. We have a T1 line

LesleyF: one window at a time, I presume

LesleyF: RAM was cheap for a while.

HeatherBu: but I'm not sure of the bandwidth

HeatherBu: RAM is so sad

HeatherBu: I tell the kids to go have a cup of coffee while waiting for something to load

LesleyF: well, it really doesn't matter what the bandwidth is with your 32 RAM; it's like squeezing toothpaste back into the tube.

HeatherBu: Good analogy! I'll have to use that one

LesleyF: kids should drink water and milk..

HeatherBu: We're a rough and tumble rural crowd

LesleyF: they could do their homework while waiting...

HeatherBu: We raise "Road" scholars, rather than Rhodes

LesleyF: so how are you incorporating tech now, especially in terms of problem solving?

HeatherBu: I have an Advanced Tech class, 5 boys, and they are currently working on an Invention project

HeatherBu: They have come up with ideas, researched the Patent Office

HeatherBu: written a proposal after going to the SBA site...

HeatherBu: and are now creating schematics in Paint/Word/Inkscape

HeatherBu: and a tri-fold brochure in Word97

HeatherBu: I roped my principal last night after Open House and showed him our classroom in the K-12 campus.

HeatherBu: He's all for it!

HeatherBu: Lesley, I'm not sure if my project meets your definition of problem solving?

LesleyF: is the tech class an elective? When is it offered (during the day or after school?) and where are the girls?

HeatherBu: It is an elective, year long as opposed to the required "elective" of 1 sem. in 7th grade.

HeatherBu: Unfortunately, it was scheduled opposite band, and I lost most of the girls to that

LesleyF: I have a very open definition of problem solving: solving information problems

HeatherBu: We are a VERY small school--450 kids

LesleyF: I'm amazed they let you have a class of 5.

HeatherBu: Me too.

HeatherBu: But the principal is open-minded. The Tech Dir, on the other hand...

HeatherBu: well, 'nuf said.

LesleyF: so that doesn't sound like incorporation, it's more like a side dish. What are the attitudes of teachers about tech?

LesleyF: is the tech director at the district?

HeatherBu: Teachers are either scared to death or frustrated beyond all belief

HeatherBu: Tech dir is in the dist. and has been there for 40 yrs,

HeatherBu: moving from Math to tech about 10 yrs ago

HeatherBu: As for bandwidth, I do know we cannot access any site that deals in sound...

HeatherBu: whether listening to a podcast or

HeatherBu: trying to send a greeting card through Blue Mountain

HeatherBu: Even NPR is cut off

HeatherBu: We're told it overloads the network

HeatherBu: We have one mobile cart with 15 computers

HeatherBu: for the entire building

LesleyF: hmm, so you really can't do much, I'd say

HeatherBu: Well, I've gotten permission to continue using TI, and I got two of our teachers to join today

LesleyF: what is the student access to the Internet from their homes? Do most families have computers?

HeatherBu: Probably 60% have internet access, either at their own homes or at a friend/family member

HeatherBu: Lesley, other than having some corp. take a sudden interest in us, do you have any suggestions?

HeatherBu: We are in Texas, so have the wonderful high-stakes TAKS test guiding all that we do

LesleyF: what about home computers withOUT Internet?

HeatherBu: None that I know of

LesleyF: What kind of software do you have, Heather?

HeatherBu: Word/Excel/PPoint 97

HeatherBu: and whatever OpenSource I can scrounge that will work on my machines

HeatherBu: So far we've added Inkscape (vector graphics)

HeatherBu: they all have WordWeb (dictionary)

HeatherBu: and that's about it.

HeatherBu: I've run across a version of LOGO that is java based, so I may be able to use it

HeatherBu: but the speed/ram issues may be too much

LesleyF: LOGO is old.

HeatherBu: I know.

LesleyF: What do you do with Inkscape?

HeatherBu: They have created personal and class logos, and are using it now to create their schematics

HeatherBu: The biggest problem solving they are doing at the moment is figuring out how to do the layout

HeatherBu: for the brochures. Tri-fold, front and back, and it's driving them nuts!

HeatherBu: I love it. They will sketch something

HeatherBu: then hold the piece of paper up to the screen to see where they need to place their images

LesleyF: so do you have scanners? It sounds as if Inkscape is a tricky software to use when kids could just use pencil and paper...

HeatherBu: I have a scanner on loan, scan stuff into my machine,

HeatherBu: then put it in a shared folder. They reach through the network

HeatherBu: to get their stuff. I forgot, we did a trial with WinMorph

HeatherBu: taking old and current photos.

LesleyF: that's more cutesy than substantive, don't you think?

HeatherBu: It took so much time to render that they really got frustrated.

HeatherBu: Cutesy. True.

HeatherBu: It does try to make them think in terms of a specific audience

HeatherBu: and use their brains to try and think in 3d

LesleyF: so it sounds as if you're focusing on visuals, is that it? If so, then I guess that modeling would be the way to address the issue of problem-solving. That is, how drawing a picture/model will help solve the problem.

LesleyF: but morphing is 2D...

LesleyF: unless you're using CAD, which is tricky even for high schoolers

LesleyF: do you ever use spreadsheets to problem-solve?

HeatherBu: They had to create Gann charts, shop for materials and price them

HeatherBu: to help create a budget for the proposals.

HeatherBu: I need to dig deeper, don't I?

LesleyF: yeh, you can use spreadsheets to predict, for instance.

HeatherBu: ??

LesleyF: I'll explain.

LesleyF: students can input figures about energy use.

LesleyF: Say that each student calculates the energy used in their home -- and can use an approximation of their home utility bills factors (x$ for y kilowatts of energy, cost of water use / unit, etc.).

LesleyF: They can then calculate what would happen if they left all the lights on, or kept a car running, or water flowing overnight.

BjB . o O (authentic real life lesson)

HeatherBu: I see.

LesleyF: then they can find out how much it would cost to put in insulation, solar paneling, and predict at what point they would save money.

HeatherBu: Ah ha.

HeatherBu: One of the inventions is a solar generator

HeatherBu: we were victims of one of the hurricanes

HeatherBu: I could get the whole group working on that

LesleyF: this can also be done in social studies where students look at GNP, mortality rates, education rates, etc. and see if they can uncover trends and correlations.

HeatherBu: gotcha

LesleyF: students could find out how much energy could be generated with a solar generator and again predict energy used and cost.

HeatherBu: Yes. and whether the student's vision of home application is valid

LesleyF: If you click on the FILES link to the left, you can access a webliography of URLs that focus on problem-solving. What might be especially good for your students are the project-based learning ones, and the math and science ones.

LesleyF: Do you know about design briefs?

HeatherBu: I'm listening eagerly

LesleyF: You and the other teachers could access these problem sets, and have the students work with them.

HeatherBu: Okay. I can see what I'm going to be digging into. Thanks SO much for pointing me in a proper direction.

LesleyF: So a design brief states a problem (based on a needs assessment), then lays out the factors contributing to the problem, suggests ways to address those factors as well as build on positive factors, and then design an intervention (such as a solar generator) to solve the problem. It's a way to frame a problem /question / task.

HeatherBu: I see.

LesleyF: Take a look at this url: http://teched.vt.edu/html/PTpracticuum.html

LesleyF: it should work very well with MSers.

HeatherBu: Looks like a banquet.

HeatherBu: I've got it tagged.

HeatherBu: so I can peruse it at leisure this evening.

LesleyF: good idea

HeatherBu: I notice one of your files is about collaboration tools. I've just run into Cmap Tools

HeatherBu: a collaborative mind-mapping software.

LesleyF: do you think your teachers would know how to use spreadsheets or design briefs with their students?

HeatherBu: There are several who will be eager to try this.

LesleyF: great!

HeatherBu: I'm doing a workshop in June and

HeatherBu: will try to incorporate as much as I can.

HeatherBu: The workshop is supposed to be about integrating Tech for our GT kids

HeatherBu: This will REALLY be wonderful to use with them

LesleyF: that's a smart way to approach it. I'm assuming that you're doing to try out a couple of projects to show them concrete ways to do the incorporation based on their curriculum?

HeatherBu: Right.

HeatherBu: I love getting into the thick of things and then trying to find my way out.

LesleyF: The other idea is to use ThinkQuests as a way to use the graphical elements to explain concepts. Do you know about those?

HeatherBu: Yes, thinkquests are already on my sheet,

LesleyF: good

HeatherBu: and I'm

JeffC: how about webquests, trackstar and filamentality?

HeatherBu: framing one to use with the ATA kids.

JeffC: know those?

HeatherBu: I'm familiar with all three,

JeffC . o O (cool)

HeatherBu: and have several Fil's that I use with students and teachers

LesleyF: can students or teachers email? If so, they might contact engineers to find out what types of problems occur in their field and how they solve them, incorporating technology -- AND the stuff they learned in school...

HeatherBu: Ah. email. Teachers, yes. Students, no.

HeatherBu: I'm trying to build a WikiSpace for the kids

HeatherBu: but w/o email they can't log in

LesleyF: so the teacher could have student write up critical questions, and then the teacher could do the sending.

LesleyF: do you have an intranet (LAN)?

HeatherBu: That's what we've been doing.

HeatherBu: We do have a LAN

HeatherBu: but aren't really supposed to be using it.

HeatherBu: I'm just waiting for the TD to find out that the boys are using my machine to access files

HeatherBu: and that they been reaching through to the library machines to get their History projects

HeatherBu: to work on in my room.

HeatherBu: The kids (all of them) really want to use tech to grow,

HeatherBu: not just to play games.

HeatherBu: Now you're showing me ways they can

HeatherBu: I guess it's going to be grass roots to help the teacher move from Show and Tell to letting the kids do the actual work

HeatherBu: and the true learning.

LesleyF: absolutely

LesleyF: so does that give you some ideas to go forth?

HeatherBu: A lot of food for thought this evening. Thank you! I'm afraid I'm almost on overload, but I'm looking forward to "digesting" all of this.

LesleyF: BJ can tell you how this session is archived

HeatherBu: Great.

BjB: when you log out you automatically will get a transcript send to your email, Heather

HeatherBu: Okay. That's good, because I'm certain I will want to reflect on all that we've discussed.

LesleyF: do you have a topic that you'd like us to discuss next month?

BjB nods...transcripts are terrific for that

HeatherBu: Not yet, but let me work on this for a bit and if I come up with something

HeatherBu: I'll leave you a message.

BjB: the next Targeting Librarians is on April 19

HeatherBu: I'll put it on the calendar.

HeatherBu: Thanks y'all! Have a good evening.

BjB waves bye to Heather

LesleyF: ok; usually at the present session we figure out the next month's topic?

HeatherBu: Then I'll bow to your group brain and look forward to meeting with you next month. No matter what the topic.

LesleyF: how about managing technology?

BjB: cool...I was just going to suggest something related to this month's topic!

HeatherBu: sounds good to me.

HeatherBu: Looking forward to Apr. meeting.

LesleyF: good!

HeatherBu bows to all, with a grin

HeatherBu left the room.

LesleyF: see you next month!

BjB waves goodnight

BjB: take care