

**Title of Session:** Online Reading, Spelling and Math Games

**Moderator:** BJ Berquist

**Guest Speaker:** Jordan Pollack

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Room: After School Online

**BJB2:** we usually start discussions with introductions. Please tell us where you are located and what you teach or hope to teach

**DavidWe:** I'm David Weksler. Bj, Jeff and I are HelpDesk volunteers for Tapped In. I'm in New Jersey and I help teachers learn more about educational technology, especially for math and science

**JordanP:** My name is Jordan Pollack. I am a Computer Science Prof. at Brandeis University, and have been building a new kind of educational software technology for several years.

**SusanR:** I am a k to 8 Occasional teacher from Ottawa, Ontario

**ErinDu:** I'm Erin and in Connecticut. I'm a Grad student and am interning and will be student teaching in the spring in 1st grade

**BJB2** applauds. We're happy you are joining us tonight to present your tech, Jordan!

**SusanR:** and former grade one and two teacher and tech trainer

**SusanR:** teacher

**JordanP:** I hope to get everyone signed up and playing together! But you have to have a reasonable computer and a browser running Java.

**BJB2** . o O ( if you're logged in to Tapped In you have a browser running Java )

**JordanP** chuckles

**BJB2** hands the virtual floor over to Jordan

**JordanP:** For many years I've worked in areas like Cognitive Science, Artificial Intelligence and Simulated Evolution.

**BJB2** . o O ( I see Jordan has mastered emoting )

**JordanP:** evolution as we all know, is based on competition for fitness in an environment, driven by variation and reproduction...

**JordanP:** And we have a western religion about free enterprise and competition leading to innovation....

**BJB2** . o O ( unless you believe in Intelligent Design? )

**JordanP:** yet in schools and classrooms, competition doesn't work.

**JordanP:** Does anyone know why?

**JordanP:** why competition doesn't work too good in classrooms

**DavidWe** smiles

**DavidWe:** Because Howard Gardner said so?

**BJB2:** the emphasis is on cooperative learning?

**SusanR:** Hi Jason

**JordanP:** the best get lazy and the worst get detached, so averages go down.

**JordanP:** (in a nutshell)

**JasonDe:** Hi Susan

**BJB2** nods. Is intrinsic reward a higher level intelligence?

**DavidWe:** What if we paid students for grades?

**DavidWe:** That's competition, might ALL grades go up, then?

**JordanP:** The big idea here is that we discovered in simulation of evolution that competition is not enough, to maintain progress, we need to reward both competitiveness and informativeness.

**DavidWe** . o O ( What are the evolutionary reasons for altruism )

**JordanP:** So we have a new "post competitive" form of interaction between learners we put into multiplayer games.

**JordanP:** Inspired by new scientific results in evolutionary game theory.

**JordanP:** But the games are really simple.

**JordanP:** Two players create problems for each other, then the computer mediates, and passes them each others problem to solve.

**BJB2:** what age level is this for, Jordan?

**JordanP:** With a time limit, and reward for correct answers, what usually happens is that the students give each other REALLY HARD PROBLEMS.

**JordanP:** But then they realize they are getting nowhere, and collude to give each other easy ones.

**JordanP:** The first game we released is spellbee, which is for literacy, and has been used in grades 2-8, and older in special cases.

**JordanP** projects <http://www.spellbee.org>

**JordanP:** Please sign up for an account, and we can play each other. Then I'll tour you over to Patternbee and Moneybee, which use the same login and password you make up for spellbee.

**JordanP:** Welcome Jason to the game. When you click on a box, it turns yellow in the other persons browser. When you click on a yellow box, the spelling bee game starts.

**JordanP:** It is several rounds of picking a word from a computer-generated list, then receiving audio/visual cues to the missing word.

**JordanP:** anyone want to play Jason?

**JordanP** . o O ( hmm, maybe signup is harder than I thought? Does anyone need a walk through? )

**JordanP:** welcome Erin to spellbee; why don't you play Jason?

**JordanP:** both players have to agree to a match...

**JordanP:** ok, I think Erin and Jason are on their way... Maybe Susan has a firewall?

**JordanP:** Welcome Susan....Anyone else coming to play?

**SusanR:** I am in

**SusanR:** I am okay

**BJB2:** do you have to log in as a student?

**JordanP:** You can sign up as a student, teacher, or adult. Teachers can add all their students in bulk and watch their progress.

**JordanP:** I'll play Susan until someone else shows up...

**SusanR:** . o O ( is nervous )

**SusanR:** still loading

**SusanR:** I'm here

**ErinDu:** me 2

**BJB2:** I'm in as BarbaraJ

**SusanR:** I clicked new game

**JordanP:** trying Susan again...got to the first word...

**SusanR:** cool

**JordanP:** essentially, we are betting on the knowledge of our partner and get paid for easy questions they get WRONG and hard questions they get RIGHT.

**BJB2:** I have the apache page up...what do I do next?

**SusanR:** audio is good

**JordanP:** BJ; try to go to <http://www.spellbee.org> again and login

**BJB2:** ok

**SusanR:** can a teacher create his/her own word lists and audio

**SusanR:** can't figure that last one

**JordanP:** built!:)

**JordanP:** anyone else playing besides me and Susan?

**SusanR:** like the replay feature

**SusanR:** what's a mahout

**JordanP:** game is very close now...TIE!!

**SusanR:** fun

**JordanP:** probably better for kids than adults....

**JordanP:** Lets gather back to discuss and move onto [www.moneybee.org](http://www.moneybee.org) next. It is a pre-algebra game

**JordanP:** we have broken 29,000 signups, and growing from 100-300 games/week. Last spring we were successful in getting some press, and the site was tracking upwards of 1000 games/week

**BJB2:** wow...very cool, Jordan!

**SusanR:** American coins..

**SusanR:** Canadian coin???

**JordanP:** I see Erin and Susan already playing moneybee.

**JordanP:** The cars on the bottom are the same function as the green/red bars in spellbee, they tell you what you are betting on your partner getting the problem right or wrong.

**BJB2:** . o O ( now we know who the overachievers are )

**JordanP:** anyone else coming over to play?

**JordanP:** hi bj!

**JordanP:** If you click on me the game will start.

**JordanP:** make up problem for me by clicking coins...

**JordanP:** 3 coins for 31 cents is easy!

**JordanP:** hit READY for next round

**BJB2:** I don't understand

**JeffC:** is back

**JordanP:** if I give you a hard question and you get it wrong, I get few points.

**JeffC:** My daughter's class is doing that by hand... her teacher will be thrilled (adding coins).

**JeffC:** nickel quarter penny

**JordanP:** There are about 10,000 different problems of varying difficulty.

**JordanP:** we are capturing every click down to 1/10th of a second, and hope to be able to show the development of conservation reasoning, and heuristic skill.

**SusanR:** what about for Canadian audiences

**JordanP:** I need a grant from Gov.ca

**JeffC:** worried that your money won't count Sue?

**JordanP:** BJ: I didn't get points for giving you too hard a problem.

**BJB2:** I don't see where the questions are, Jordan

**JordanP:** drives savvy video-game-playing kids to ask each other appropriately challenging questions.

**BJB2:** all I see are a row of coins

**JordanP:** you have to click on the coins to add coins to the problem, which is shown below...

**JordanP:** then you have to click on coins to SOLVE the question I give you

**EmilyW** joined the room.

**JordanP:** Kids get hooked on it pretty quickly, and stay focused as if they are playing a video game.

**JordanP:** but they are learning algebraic skills.

**JordanP:** you now hit "new game" to play again.

**BJB2:** I need to register for a lower grade!

**JordanP:** cmon Erin...

**JordanP:** Erin, click on me in green!

**JordanP:** btw, if you overpick a coin, click on the one with the red X to remove it.

**SusanR:** am I showing up

**JordanP:** Erin, feel free to send me a killer problem:)

**JordanP:** It's when pennies are between 6 and 9 that people get confused.

**BJB2:** Jordan, we have 10 minutes left...

**BJB2:** did you need/want to show us one more?

**JordanP:** OK, I'm going to invite you to logout of moneybee, and join me in patternbee.

**JordanP:** <http://www.patternbee.org>

**JeffC:** I think I stumped sue

**JordanP:** This is a rare variety of Tangram, with asymmetric pieces.

**JordanP:** In this game, you drag puzzle pieces, rotate and flip them to make a puzzle for your partner...

**JordanP:** Emily; try making up a new user/password at spellbee, then coming to patternbee...

**JordanP:** Patternbee enhances spatial reasoning, as well as problem solving useful for engineering and science...

**EmilyW:** I made a new username, same problem

**JordanP:** There may be zillions of different puzzles here, we can't quite enumerate them because of the analog nature of location.

**JordanP:** Emily, can you tell what browser and version of Java you have?

**SusanR:** neat; but I am not receiving any challenges

**BJB2:** Jordan, this has been an absolutely fascinating experience!

**JordanP:** BJ stumped me!

**BJB2:** . o O ( must be the art teacher in me )

**JordanP:** I thank you all for coming. My email address is

**JordanP:** [bigname@scientist.com](mailto:bigname@scientist.com)

**JordanP:** if you have any questions.

**JordanP:** I am hoping to reach 100,000 kids by June!

**SusanR:** Thank you Jordan. I can see where classes may enjoy these challenges

**JordanP:** The project is funded by NSF and Hewlett Foundation.

**JordanP:** The next game is called Geograbee, and is a 50 state challenge using a map for quizzing each other.

**JordanP:** Maybe by December it will be up.

**BJB2:** I really appreciate you sharing these sites

**JordanP:** Thanks everyone for their time.

**BJB2:** then we'll have to invite you back to show us Geograbee!

**SusanR:** Thank you again

**JordanP:** I would be more than happy to return anytime. It was fun!!!

**JordanP** waves bye for now!

**ErinDu:** thanks I know the kids would love this what a great idea

**JeffC:** Jordan... I'm going to try this with my daughter's class.

**JordanP:** ohoh. BJ is stumping me again...

**BJB2** chuckles. Thanks, Jordan...I needed that!

**BJB2:** I'm going to quit while I'm ahead!

**BJB2** winks. I'm sure the kids are really good at the games

**BJB2** waves goodnight to everyone. Thanks again for joining us. This was great!

**JeffC:** I want to throw up a couple of other urls

**JeffC:** <http://www.setgame.com>

**JeffC:** try the daily puzzle

**JordanP:** It is a nice puzzle game Also, sudoku is nice

**JeffC:** <http://www.sheppardsoftware.com/>

**JordanP:** The human element, even without a chat, adds a certain element to the game which is different from solitaire

**JeffC:** there are some very cool geography games there as well (no offense Jordan!)

**JeffC:** ok... that's enough from me

**BJB2:** I agree, Jordan...

**BJB2:** and the text to voice in spellbee is really excellent

**BJB2:** what a wonderful tool for LD kids

**JordanP:** It is a little deceptive advertising to be about spelling, but really involving reading, listening, attention, etc.

**BJB2:** absolutely

**BJB2:** I'm going to share the sites with the Special Ed group

**JordanP:** I would love to see if there are ways that the incarcerated children population can ever access these kinds of things.

**SusanR:** Try this one <http://www.20q.net/>

**SusanR:** 20 questions..amazing

**JordanP:** I have a little purple ball right here with 20q in it. Very intense AI in there.

**BJB2:** Jordan, you do know that I work in a juvenile correctional facility?

**JordanP:** I saw that when I tried to meet you last time. But it's not clear if they have any net access.

**BJB2:** and have a special interest in using the games with the incarcerated population

**BJB2:** no, they don't. But this might be something that we can negotiate

**BJB2:** I'd also like to share the sites with the Alt/Correctional ed group

**BJB2:** would the games work on a CD?

**BJB2:** but that would negate the human interplay...scratch that idea

**JordanP:** we'd have to set up a server INSIDE the prison firewall.

**BJB2:** yes, that would work.

**BJB2:** keep me posted on future developments...

**BJB2:** and feel free to join any of the special ed and/or correctional ed discussions, please

**JordanP:** The technical prowess is right now too high, needing jboss, ant, java, sql, etc., but someday should be packaged up.

**BJB2** nods

**JordanP:** Thanks for the opportunity. I hope the newsletter hits people too!

**BJB2:** absolutely.

**BJB2** waves goodnight again and heads for bed