Title of Session: Problem Based Curriculum
Moderator: Chris Aguirre
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ChrisA: So I thought we could get common definition of the term "problem based curriculum" out so we have a place to start

BJB2: what is the difference between problem based and project based?

ChrisA: One of the key differences is the end result

ChrisA: project based curriculum you will end up with an "artifact" when you finish

PollyCh joined the room.

BJB2: Hi, Polly. Welcome!

ChrisA: Hi Polly

PollyCh: Hi

ChrisA: In a problem based curriculum the possibility of no answer exists

BJB2: Polly, are you here for Problem Based Curriculum?

ChrisA: Both are defined a student centered

BJB2: we're discussing the definition of Problem based

PollyCh: yes I am... I'm glad I was able to find the right room

ChrisA: and have the teacher act as facilitator or coach

BJB2 nods to Chris

PollyCh: there is no one right answer. There are also many ways of solving the same type of problem

ChrisA: The big difference is that problem based curriculum holds the possibility of more than one answer and is often meant to simulate a real situation

DavidWe . o O (uh-oh!)

BJB2: Chris, can we stop a sec and have Polly and Jeff introduce themselves, please?

JeffC: Jeff Cooper, Education Technology Consultant and Tapped In Helpdesk, Forest Grove Oregon.

PollyCh: I'm Polly, I teach high school math (Alg II/Trig and Math Analysis)

BJB2: thanks!

PollyCh: in California

ChrisA: Is anyone using this method or a Similar method?

BJB2: Is this method recommended for special needs students?

ChrisA: I think this method can be adapted for any group of students

ChrisA: from special needs to AP the idea of building in "importance" "relevance" and "meaning" into what a student is doing is a key to getting them to buy in

BJB2 hopes Chris is going to give us an example

PollyCh: My students like doing this method...they like to see how it relates to their lives

BJB2 sits on her hands and waits for Chris to follow his agenda...sorry

BJB2: cool, Polly.

ChrisA: if the problem is constructed in such a way that a student sees these things then I think it would work for any group In fact I would go one step further and say that these are the things that can facilitate learning for us as adults

ChrisA: Does anyone use an approach like this?

BJB2: Polly, can you give us an example of how you use PBL?

PollyCh: unfortunately, with all the math standards I have to cover during the course of a year, I don't see how I can teach an entire year like this. I would love to though because my students are definitely more engaged

ChrisA: We currently use it in two areas both CTE based but work hard to wrap core curriculum into the process

ChrisA: Polly I know what you mean

ChrisA: can I ask what text book you're using

BJB2: does this make the curriculum more interdisciplinary?

PollyCh: it's a red Prentice Hall book

ChrisA: because we just adopted "Contemporary Mathematics in Context

ChrisA: which in essence is problem based curriculum

ChrisA: mathematics in real world context

ChrisA: Not being a big fan of text books in general I think this is an interesting approach

BJB2: why would this approach interfere with teaching standards?

PollyCh: an example that I use in my class...when i teach parabolas, i have students make rockets and show how they would find the vertex, etc and how it relates to what I'm teaching in class

ChrisA: I think it comes down to understanding what place different subjects have in the learning situation

ChrisA: That is really cool

ChrisA: does anyone else do something like this

ChrisA: if so would you mind adding it to the whiteboard so we can keep a running list

ChrisA: We run a class entitled "Boat Building" where we actually construct a boat to be raffled off in the spring

ChrisA: The boat is designed and fabricated by the welding class

BJB2: I think art classes are fundamentally problem based and can be cross curricular as well

BJB2: a welded boat?

PollyCh: When I taught Algebra I, and I was teaching the sections of proprotions, I would have the students create a larger proportional bridge

ChrisA: ya I agree that Art is a great problem based class

ChrisA: Let me ask this does anyone use any other method other than lecture to deliver content

BJB2: like research?

ChrisA: I think any CTE class has the potential of being an integrated curriculum problem solving class

PollyCh: once in a while, I'll do discovery where I will give the students hints and pieces of information and I'll have the students derive the formulas

ChrisA: no I am talking about constructing problems that engage students by creating interest and relevance

ChrisA: and places the teacher in the role of listener, mentor, facilitator

ChrisA: is anyone doing anything with video and DVDs to add lecture to curriculum with out using class time to stand and deliver

ChrisA: the lecture that is

PollyCh: I use united streaming as an intro

ChrisA: a problem solving curriculum not matter what shape it takes, art, CTE , math works when the problem you give has meaning to the student

ChrisA: that sounds cool what is that Polly?

PollyCh: It's a website that has links to all different standards from all the core curriculums...for example, I can click on 9th grade math, Algebra I, quadratic function

PollyCh: it will show me different video clips for the quadratic formula

PollyCh: all the videos are 2-3 minutes long...and I use it as an intro to show the kids what I'll be teaching that day..

ChrisA: is that a free site?

PollyCh: or I'll use the videos as a closer to my lesson...the videos are great because 1) they're short 2) they show a real-life example

PollyCh: yes...I think the site is

PollyCh: www.unitedstreaming.com

ChrisA: so the videos create "relevance" and meaning for students?

PollyCh: not all the videos, but there's such a large selection, I can find one for almost any concept I teach

ChrisA: going back to the idea I proposed earlier Math, science, Language Arts are materials used to solve problems

ChrisA: a problem based curriculum would present a student with a problem or a set of problems that would require them to use knowledge of different subjects to solve: learning transfer

ChrisA: In my opinion, it happens all the time but on a small scale

ChrisA: if the problem is large enough and has meaning to the person trying to solve it then that knowledge has the potential of being internalized and used some place else

ChrisA: I see it all the time vocational ed

BJB2 agrees

ChrisA: What if we didn't put kids in courses; we put them in problems? So instead of learning algebra they would take a course called rocket science and literally learn algebra through rocket science?

ChrisA: that is not so far fetched

ChrisA: it actually is adaptable to any subject

PollyCh: I think one of the reasons we rarely see it in core classes is because the teachers don't get together and work together to create curriculum that covers multiple subjects

BJB2 agrees with Polly...it's unfortunate

PollyCh: I would love to teach a class called rocket science...the students would be so much more interested

ChrisA: for example what if music, math and visual media were taught together

ChrisA: I agree with that Polly but I think the pressure to produce better test scores hold the potential of something really cool

PollyCh: then students who are visual learners or learn through that type of multiple intelligence would have a greater chance of doing well in that particular subject

ChrisA: Not being a believer in high stakes testing I do feel that an approach like the one I am advocating tonight has the potential to improve test scores

PollyCh: I agree

ChrisA: I agree with that but I would also argue that any learning modality goes through this process

ChrisA: think about it from this angle how do you learn

ChrisA: what does it take for something to stick for you?

DavidWe wonders if Chris was aware of the support the AutoDesk Educational Foundation (no longer in existence) gave to Problem/Project Based Learning

ChrisA: and really be useful

ChrisA: no But I would like to hear more

DavidWe smiles

DavidWe: I went to some very interesting conferences often titled, "Kids Who Know and Can Do"

BJB2: we have about 10 minutes left, Chris....and I'd like to know if you plan on continuing this topic next month?

ChrisA: I would contend Polly that in the end it took you finding meaning and relevance and importance in what you were trying to learn to honestly get it to stick

PollyCh: yup..if I didn't find meaning, I wouldn't care

ChrisA: I would like to meet next month to discuss assessment and provide syllabi of courses that use this approach and use that time to exchange problems

BJB2: Great, Chris...third Monday same time?

PollyCh: sounds good

ChrisA: I am just saying that any problem we come up with in this context needs to have that same quality for our students or it will do the same thing for them

ChrisA: sounds great

ChrisA: Does anyone have a problem they use in any class that they can share with the group?

BJB2: perhaps we can bring an example next month, Chris

ChrisA: That is my goal Inside of our CTE program we are actively constructing problems that use integrated curriculum to solve but are individual or small group based to promote meaning and importance

DavidWe hopes Chris will tell him what CTE stands for

BJB2: Any last questions for Chris?

ChrisA: going back to the boat building example we have CTE students in a welding class calculating angles, weight, balancing points in an effort to build this boat

ChrisA: I am sorry David

DavidWe smiles

ChrisA: that's my mistake. It stands for career and technical education

DavidWe: thanks

ChrisA: ya sorry about that

BJB2 appreciates that clarification

BJB2: Thanks for introducing us to this topic, Chris!

ChrisA: Thanks BJB

ChrisA: Thank you everyone for attending