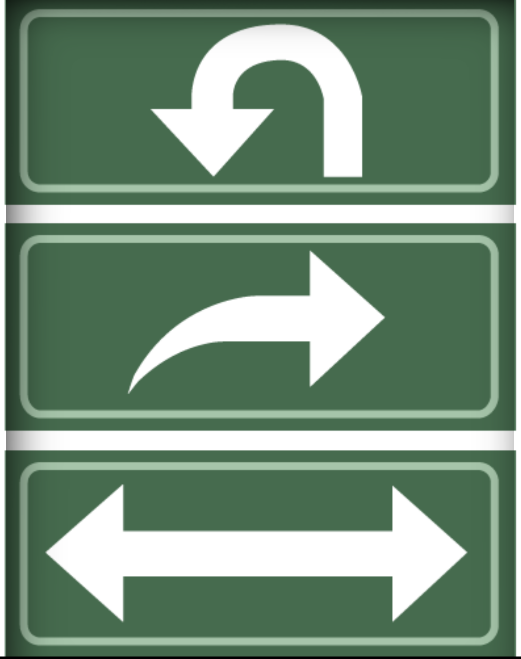

Online Learning Strategies: Theory Overview

June 13, 2013

Presented by MATEC NetWorks

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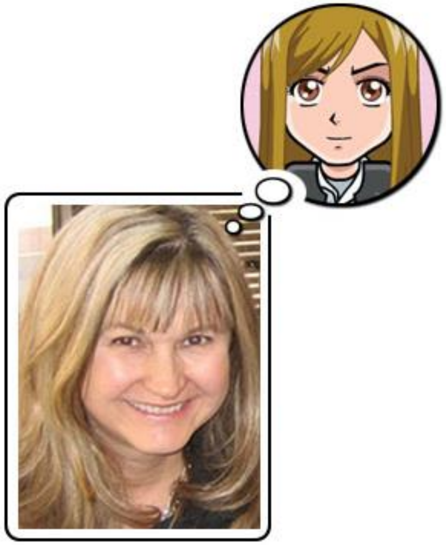
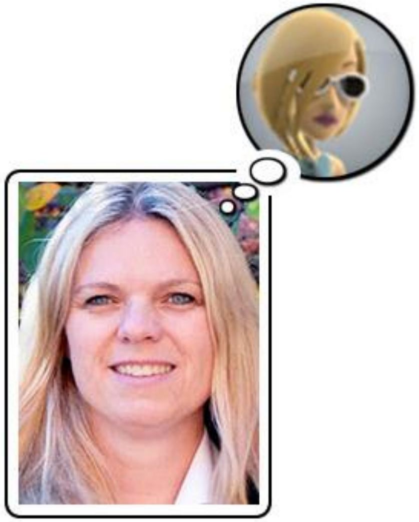
Presenters





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MATEC

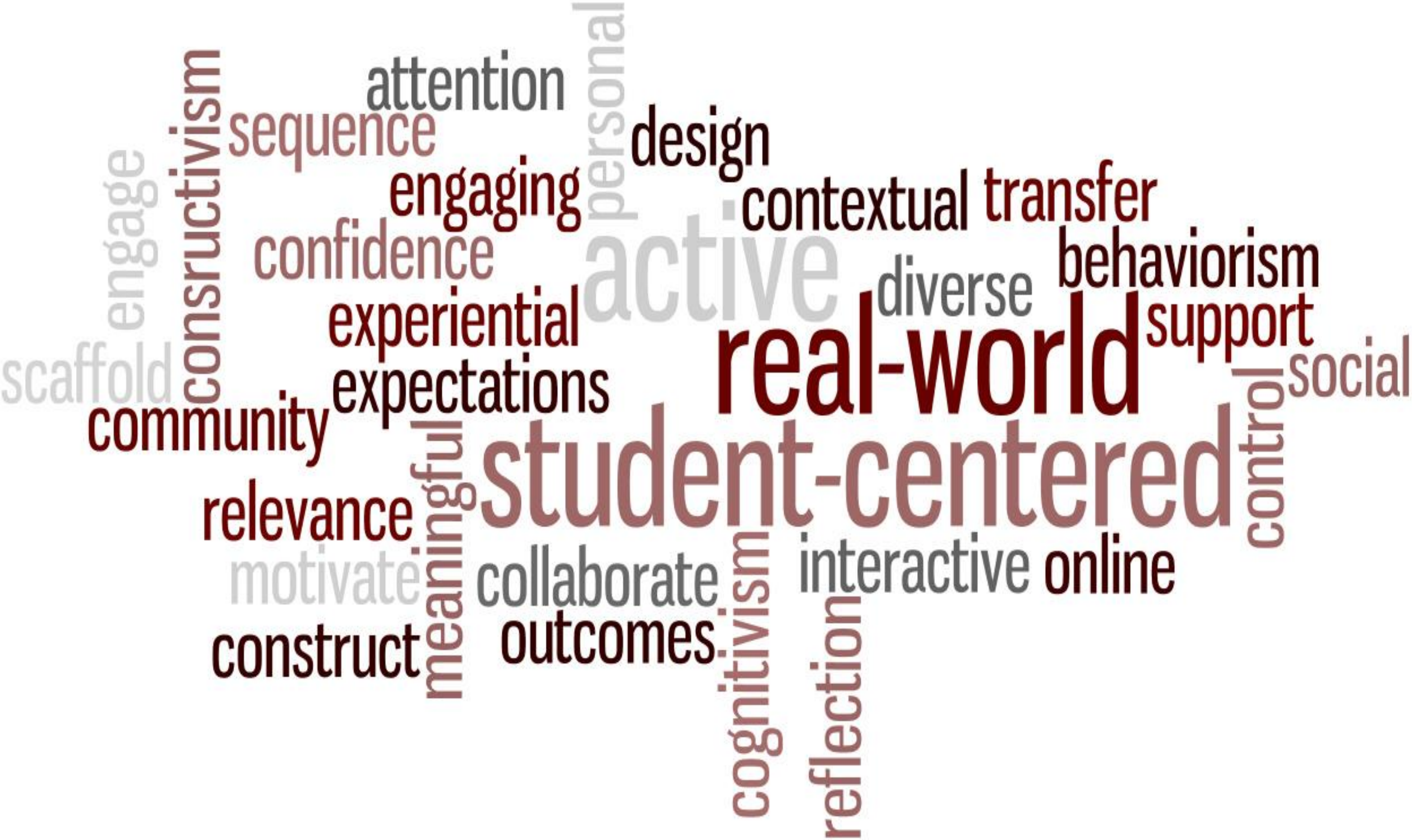
Objectives

- Present an overview of constructivism, experiential, and contextual learning theories
- Address online learning principles for deeper learning and student engagement
- Provide examples of online instructional strategies that have been successful
- Challenge participants with 8 goals for developing a student-centered online course

Audience Poll

How many of you have …

A. Taught/facilitated an online course
B. Taken an online course
C. Designed an online course
D. Other


personal
attention
consructivism
sequence
design
engage
engaging
contextual
transfer
confidence
active
behaviorism
diverse
experiential
support
real-world
scaffold
expectations
social
control
community
meaningful
student-centered
relevance
cognitivism
interactive
online
motivate
collaborate
reflection
construct
outcomes

Learning Theories

Behaviorism

Change student behavior

Established model of instruction:

- Teacher-centered
  - Explicit instructions and outcomes
  - Testing and grading
- Content is sequenced appropriately
- What worked for us

Learning Theories

Behaviorism (Continued)

“The use of technology in online courses has slowly shifted the theoretical balance from behaviorism to constructivism due to the increased use of educational technologies. More often instructors are choosing to utilize a combination of these two learning styles in an effort to best meet the learning styles for all students.”

(Weegar & Pacis, 2012)

Learning Theories

Cognitivism

YANKEE SIEGE

Organizing information in meaningful ways

- Accommodate various learning styles
- Chunk content
- Content is sequenced from simple to complex
- What worked for us

University of Wisconsin-Madison. (n.d.). *Online learning theory and design principles* . Retrieved from http://academictech.doit.wisc.edu/online-teaching-resources/designing/online-learning-theory-and-design-principles

Learning Theories

Experiential

Support learning by doing and reflecting

- Experience a concrete activity
- Sharing reactions and observations through reflection
- Analyzing data
- Make inferences
- Applying new knowledge in different situations
- What worked for us

> "…hybrid approach to pedagogy that combines online learning with experiential, offline, hands-on learning" (Godwin & Kaplan, 2008).*

*Innovate (http://www.innovateonline.info/) as: Godwin, L., and S. Kaplan. 2008. Designing e-learning environments: Lessons from an online workshop . *Innovate* 4 (4).

Audience Poll

How many of you have used experiential learning in your online course?

A. Yes

B. No

C. No, but sounds good and am excited to try

Learning Theories

Constructivism

Individually building knowledge

- Student centered
- Instructor as facilitator
- Social
- Active
- Contextual
- Engaging

University of Wisconsin-Madison. (n.d.). *Online learning theory and design principles* . Retrieved from http://academictech.doit.wisc.edu/online-teaching-resources/designing/online-learning-theory-and-design-principles

Audience Poll

Which learning theory do you use most when teaching online?

A. Behaviorism
B. Cognitivism
C. Experiential
D. Constructivism
E. Combination

Learning Theories

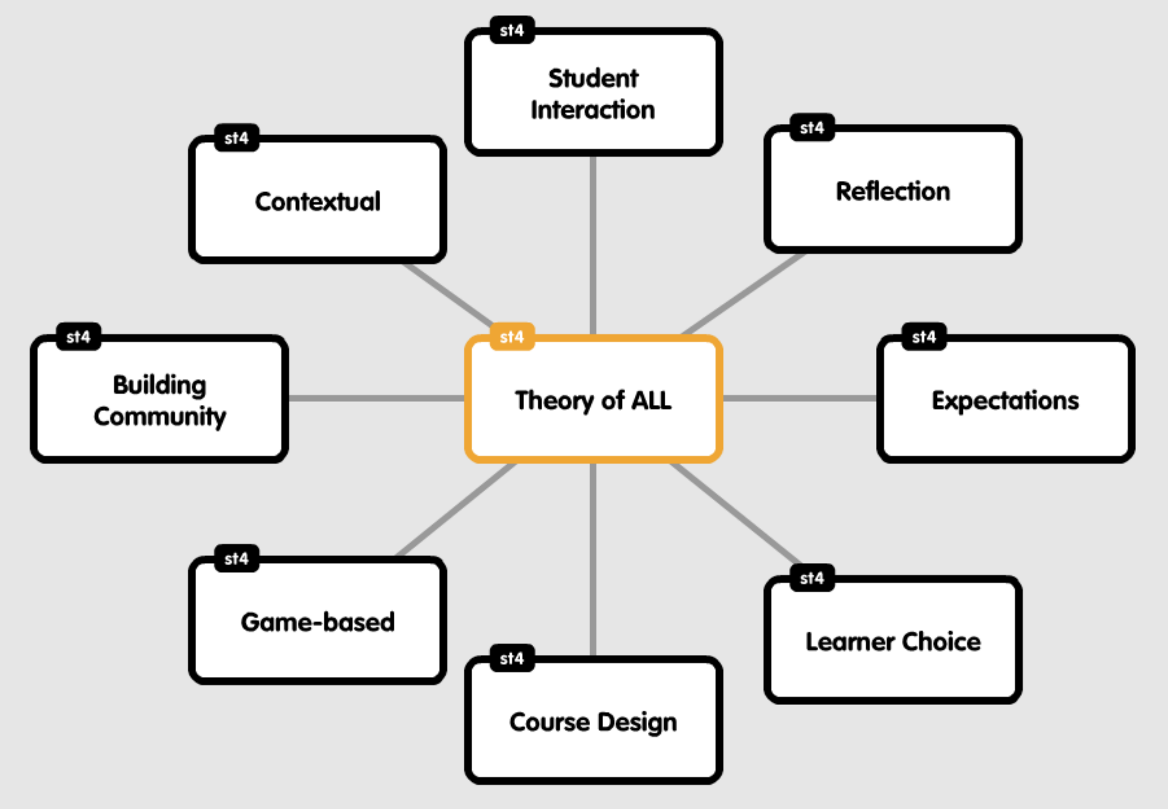
Theories in Action

Don’t worry, we’ll explain this image in a moment…

Learning Theories

Theory of All

“Online learning requires a new pedagogy that is built on establishing a relationship between the instructor or facilitator and the learners.” (Rubin, 2012)*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Student Interaction
st4
Contextual
st4
Reflection
st4
Building Community
st4
Theory of ALL
st4
Expectations
st4
Game-based
st4
Learner Choice
st4
Course Design

* Rubin, N. (2012, O7 21). *Constructivism and online learning*. Retrieved from http://nancy-rubin.com/2012/07/21/constructivism-and-online-learning/

Learning Theories

Learning Principles: What has been successful?

Learning Theories

Building Community

- Integrate reflective practices shared with peers
- Utilize collaborative tools
- Instructor utilizes prompts to encourage student interaction
- Meetups

Poll Audience

What is your institution policy for providing feedback to students in online course?

A. Less than 6 hours

B. 12 hours

C. 24 hours

D. 48 hours

E. Other

Learning Theories

Student Interaction

- Established feedback and response time
- Maintain presence in community
- Frequent interaction (“coffee break”, gentle reminders, soft nudges)
- Let’s take a look at the “coffee break”!

STN
Coffee Break
A quick word from
your instructor :-)

Learning Theories

Learner Choice

- Learner choice – (quest-based gaming)
  - Optional learning activities (quests)
  - Optional sequence of learning activities
- Teaming up for assignments
  - Learner selected collaborations
- Learner choice of instructional materials

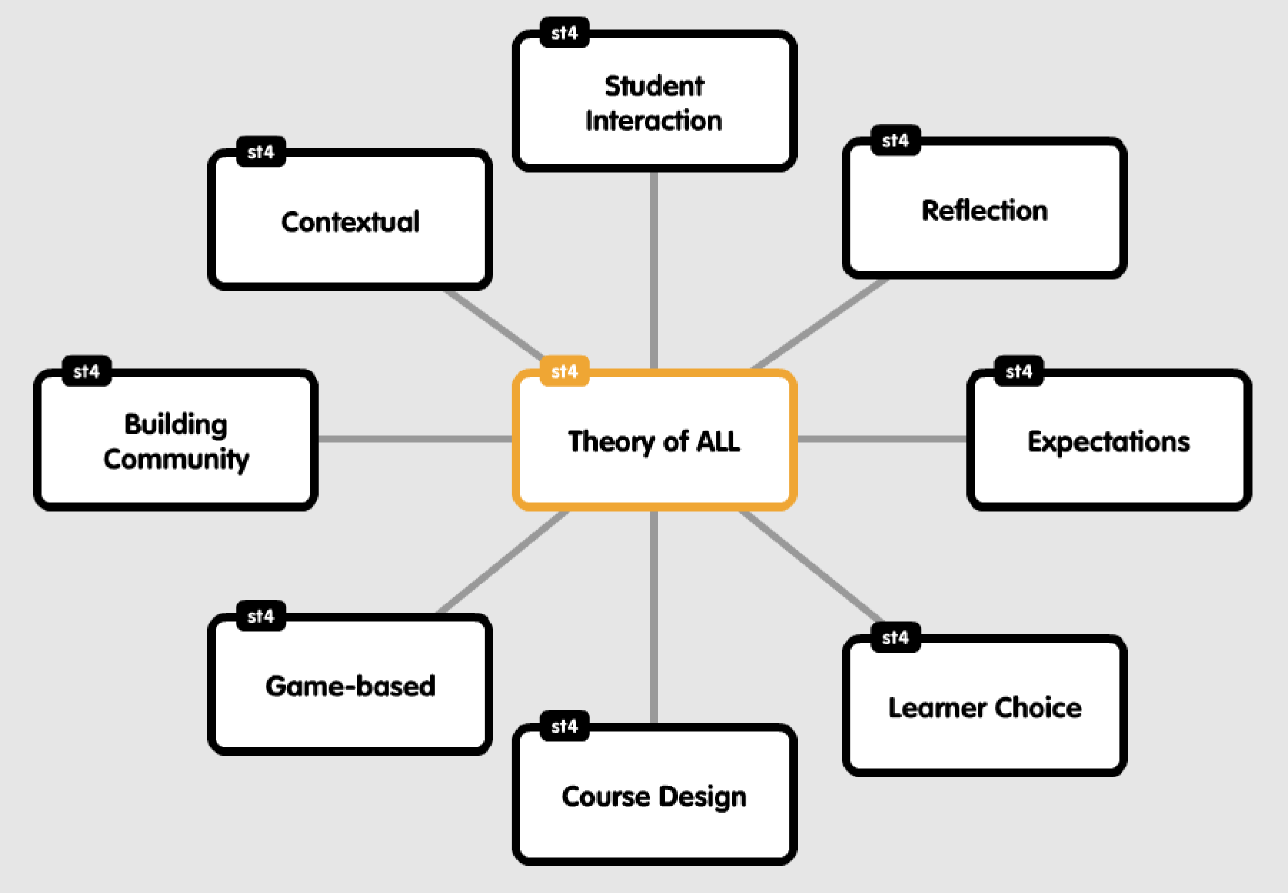
Learning Theories

Contextual

- Experiential using tech tools in the classroom (room to fail)
- Build upon student personal interest and knowledge (meaningful activities)
- Course competency – Identify issues related to implementing technology in specific disciplines
- Telephone conversations
- Mentoring
- Drawing on hints in reflections/discussions
- Meetups

Learning Theories

Theory of All



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st4
Course Design

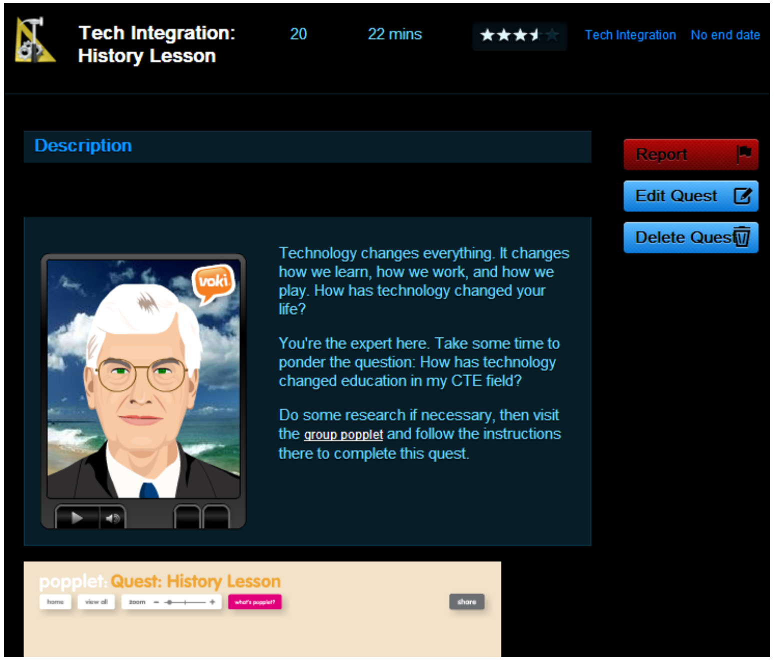
Expectations

- Explicit expectations

Learning Theories

Course Design

- Sequential
- Recognizable/consistent format
- Chunking (quest-based gaming)
- Multimedia
- Get Inspired!
- Quality Matters (QM) - Clean, non-cluttered, easy to navigate, readable



Tech Integration: History Lesson 20 22 mins Tech Integration No end date

Description

Technology changes everything. It changes how we learn, how we work, and how we play. How has technology changed your life?

You're the expert here. Take some time to ponder the question: How has technology changed education in my CTE field?

Do some research if necessary, then visit the group popplet and follow the instructions there to complete this quest.

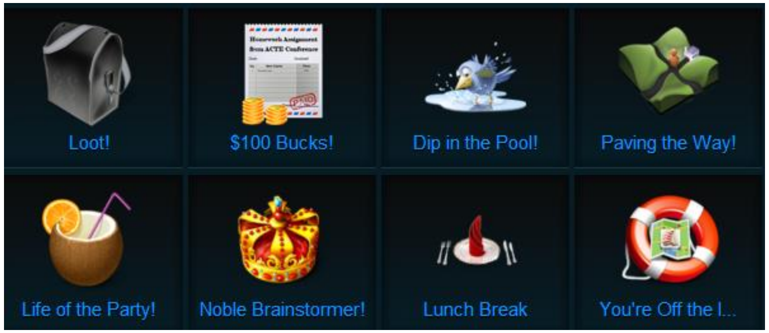
popplet: Quest: History Lesson

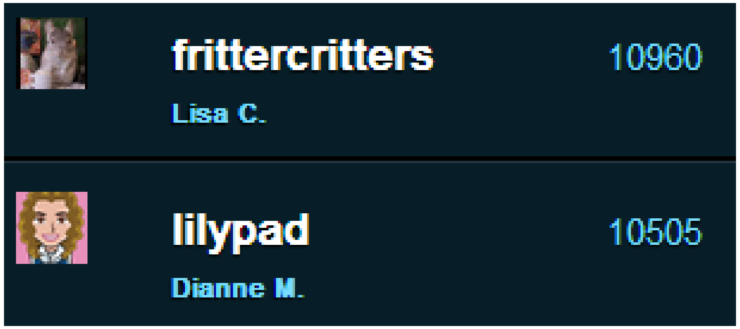
Report
Edit Quest
Delete Quest
voki
home
view all
zoom
what's popplet?
share

Learning Theories

Game-based

- Game-based components for learner motivation/recognition
- Quest-based learning – narratives, scaffolding, measureable outcomes, measure progress, engagement, competition


Loot!
$100 Bucks!
Dip in the Pool!
Paving the Way!
Life of the Party!
Noble Brainstormer!
Lunch Break
You're Off the l...



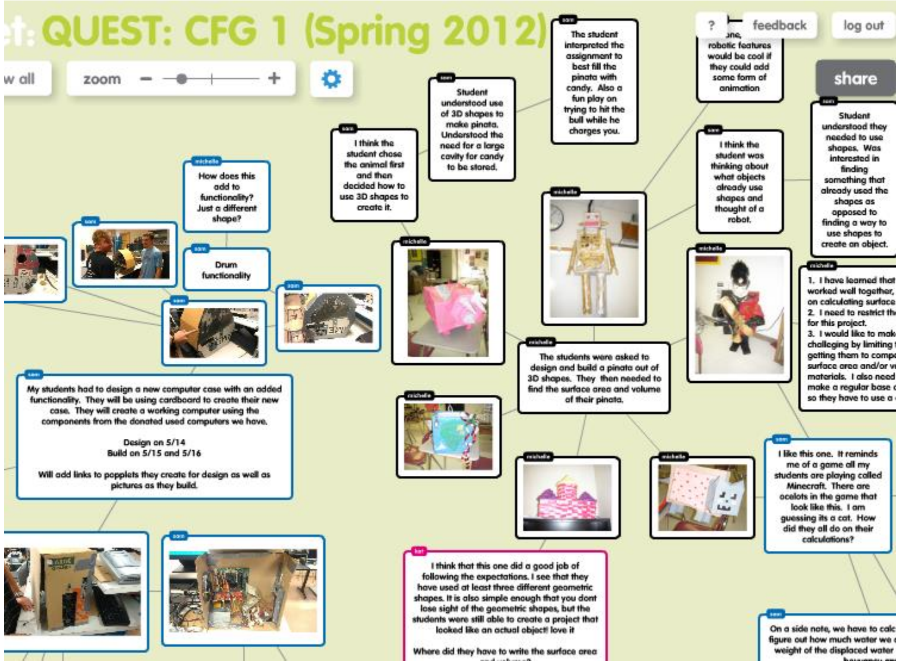
frittercritters Lisa C.	10960
lilypad Dianne M.	10505

1950s – Behaviorism
Current - Constructivism

Learning Theories

Reflective

- Reflective learning for experiential and research activities in Google+ Community (discussion board)
- Self reflection prompts for each module (no post)
- Critical friends – peer and student product review - Popplet



How does this add to functionality? Just a different shape?

Drum functionality

I think the student chose the animal first and then decided how to use 3D shapes to create it.

Student understood use of 3D shapes to make pinata. Understood the need for a large cavity for candy to be stored.

The student interpreted the assignment to best fill the pinata with candy. Also a fun play on trying to hit the bull while he charges you.

one, robotic features would be cool if they could add some form of animation

I think the student was thinking about what objects already use shapes and thought of a robot.

Student understood they needed to use shapes. Was interested in finding something that already used the shapes as opposed to finding a way to use shapes to create an object.

1. I have learned that worked well together, on calculating surface
2. I need to restrict th for this project.
3. I would like to mak challeging by limiting getting them to compa surface area and/or v materials. I also need make a regular base so they have to use a

My students had to design a new computer case with an added functionality. They will be using cardboard to create their new case. They will create a working computer using the components from the donated used computers we have.

Design on 5/14
Build on 5/15 and 5/16

Will add links to popplets they create for design as well as pictures as they build.

The students were asked to design and build a pinata out of 3D shapes. They then needed to find the surface area and volume of their pinata.

I like this one. It reminds me of a game all my students are playing called Minecraft. There are ocelots in the game that look like this. I am guessing its a cat. How did they all do on their calculations?

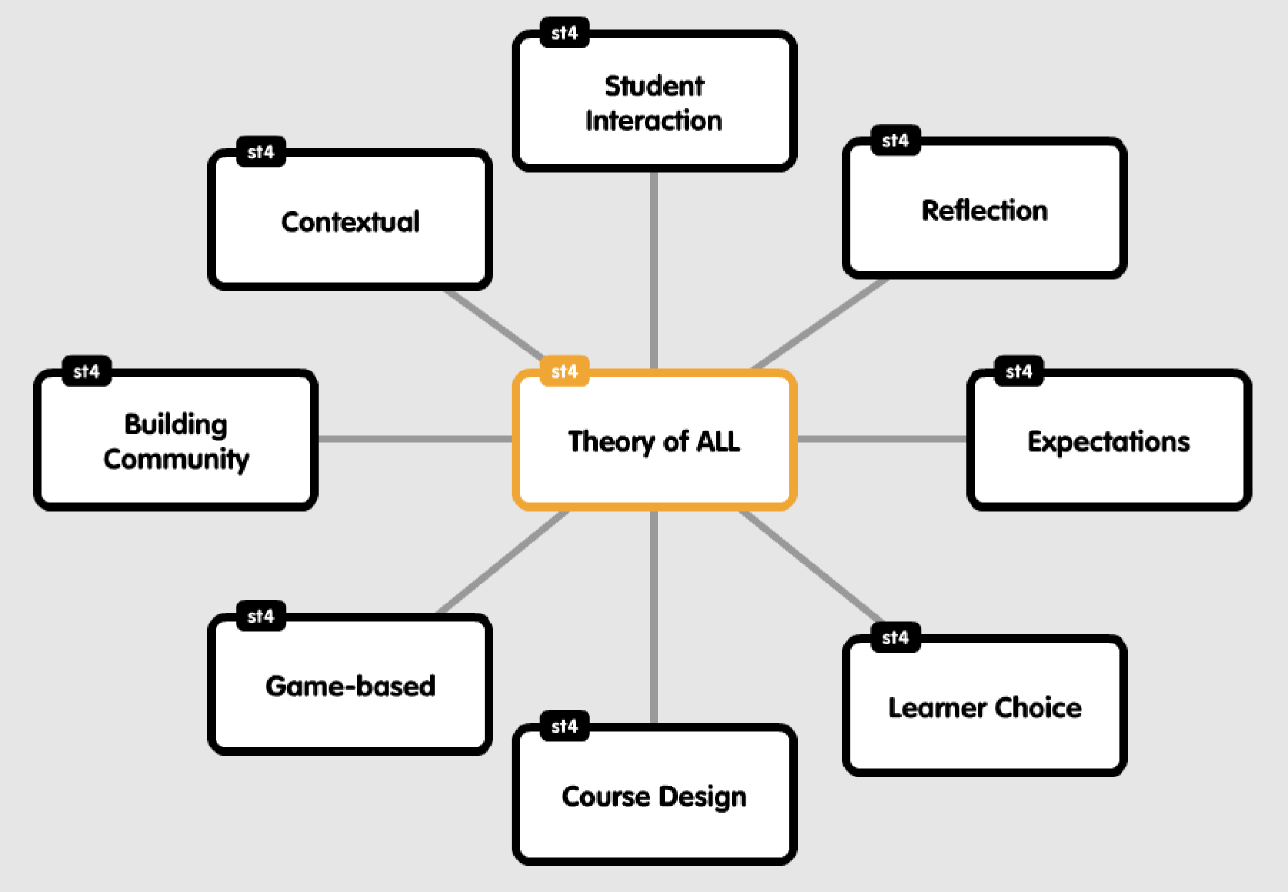
I think that this one did a good job of following the expectations. I see that they have used at least three different geometric shapes. It is also simple enough that you dont lose sight of the geometric shapes, but the students were still able to create a project that looked like an actual object! love it

Where did they have to write the surface area

On a side note, we have to calc figure out how much water we weight of the displaced water

Learning Theories

Theory of All



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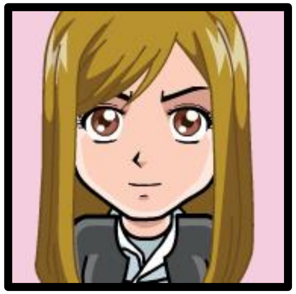
Learning Theories

Your 8 Challenges…

…for developing
a student-centered online course



(Based on Jeannette and Dianne's Theory of ALL)

Learning Theories

#8

Provide an opportunity for students to reflect on an experiential learning activity or other assignment.

Learning Theories

#7

Evaluate course content for opportunities to chunk content and add multimedia to engage students and enhance learning.

Learning Theories

#6

Integrate several of the Quality Matters components into your course design such as:

- Providing activities that support active learning
- Ensuring that navigation is logical, consistent, and efficient
- Course design minimizes distractions to improve readability

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Learning Theories

#5

Provide at least one opportunity in your online course for students to fail, fail again, and then succeed without penalty.

Learning Theories

#4

Participate daily in course community by posting questions, responding to posts, and prompting discussion among students.

Learning Theories

#3

Increase interactions with students in the course by creating a weekly “coffee break” video, gentle reminder emails, virtual classroom/conference, etc.

STH TV
Coffee Break
A quick word from
your instructor :-)

Learning Theories

#2

Permit students to build upon personal interests and knowledge to create more meaningful learning experiences in at least one unit/module.

Learning Theories

#1

Beat your institution’s response and feedback policy by interacting with students sooner than required!

SHOCKRESISTANT

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To access the recording, slides, and handout visit

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Thank you for attending the
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