



Technology enhanced Teaching and Learning (TeTL): Aspects, Issues and Projects

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Academic Council Presentation

Outline

- Five Dimensions of Teaching and Learning
- Examples
 - Pedagogical Principles
 - Technology Designs
- Classrooms of the Present
- Classrooms of the 21st Century
- NEXT-TELL (EU FP7 integrating project)
- Pilot Projects at CBS

Five Dimensions of TeTL

- Technological
- Psychological
- Sociological
- Pedagogical
- Interactional

For example, Pedagogical Principles

- Social Constructionism (Papert)
- Zone of Proximal Development (Vygotsky)
- Scaffolding (Bruner)
- Scripting (Shank & Abelson)
- Self-Explanation Effect (Chi et al.)
- Metacognition

For example, Technological Designs

➤ Artifact-Centered Discussion

A6 - Suann

Materials:

You have received all the reports from your research assistants. You have all the data. To complete this research project, please do the following:

1. Try and work out with your colleague the cause for the disease. Discuss with your colleague who or what is responsible for causing the disease.
2. Discuss and outline with your colleague the recommendations that you would make to the World Health Organization (WHO) to prevent the disease in the future.

Please let the facilitator know when you are finished doing the above.

Add message...

With increased processing for flour)

Re: All Done

List

I think it's more the raw seeds being harmful (BMAA) versus the treated seeds. Flying fox soup was a delicacy in the Chamorro society.

Reply

Title: Re: All Done

Post

Cancel

Unread messages: 0 Unread nodes: 0

Hypothesis

Maybe the fruit ITSELF is not toxic, but the OASES it sends from propionin - special cultures are used to make cyrod EDEBLE - may require SOAKING

Data

ADJUSTMENT: ALS caused through the intake of aeromonas from raw 'Cyrod plant (seeds separately) after processing (e.g. partial digestion in other mammals, soaking, making of medicine)

Evidence

VE to Chamorro

not completely native Chamorro food

use of dirt most

Discussion

Cyrod Flour Safe to eat

After proper processing, most of the BMAA/aeromonas are removed

More cyrod flour use during WWII due to food shortages

Alzheimer's

High proportion of senile plaques in smelting areas of brain

Except

Studies of rabbits exposed to intranasal Alzheimer's salts showed evidence of direct uptake into the brain via nasal-olfactory pathways

While these rabbits did not show Neurofibrillary tangles, injection of Alzheimer's salts did lead to a disorder very similar to Alzheimer's disease

Hypothesis

These plaques are well-known to be highly poisonous and must be carefully processed to remove toxins, before they are edible. If they are not properly processed they can cause vomiting, liver damage and even death. There is also evidence they have neurotoxic effects. To remove the toxins, different methods of processing are used by different cultures

Data

Seed of false sugo palm used in foodwaste

Nutritionist in Asia says, "Cyrod seeds could cause the Omeas disease. Everybody knows that the flaking is toxic. The people go to a lot of trouble to process it in order to detoxify it."

If they are not properly processed they can cause vomiting, liver damage and even death. There is also evidence they have NEUROTOXIC effects

Discussion

Cyrod - Cyrod Gull

After 3 days of soaking, large amounts of cyrod

Cyrod NOT eaten in Japan or New Orleans

The pie is sometimes described as having a "bitter almond" taste, but it does not always give off an odor, and not everyone can detect that odor

SENSE OF "L" ISSUE

Evidence

if they eat a lot of flour, it all requires a lot of prep - lots of soaking

on their own seeds themselves have the potential to cause problems, particularly during preparation and soaking

Discussion

side note for flying flour? seeds are among the favorite items

Discussion

Not yet

their mighting (Prime form) is like without any sugar, don't have it at the gears

if these things

Cancel

Post

Whiteboard:

$$n^2 = 4n(n+1)$$

3x3 grid of squares with 4 red squares at the corners.

Current users:

Azmx

Chat (0)

Azmx 5/16/06 1:35:09 PM HST: There.

Azmx 5/16/06 1:35:36 PM HST: I have an interesting way to look at this problem.

Quicksilver 5/16/06 1:35:42 PM HST: Tell us

Azmx 5/16/06 1:35:45 PM HST: Can you see how it fits inside a square?

bwang8 5/16/06 1:35:45 PM HST: yes

Quicksilver 5/16/06 1:35:52 PM HST: Yes

bwang8 5/16/06 1:35:53 PM HST: oh

bwang8 5/16/06 1:35:55 PM HST: yes

Quicksilver 5/16/06 1:36:01 PM HST: You are saying the extra spaces...

Azmx 5/16/06 1:36:05 PM HST: Also, do you see if you add up the missing areas

Quicksilver 5/16/06 1:36:11 PM HST: Yes...

Quicksilver 5/16/06 1:36:18 PM HST: they look similar to the original figures

Quicksilver 5/16/06 1:36:21 PM HST: figure

Azmx 5/16/06 1:36:21 PM HST: It is equivalent in size to the small circle in the pattern

Quicksilver 5/16/06 1:36:33 PM HST: Small circle?

Azmx 5/16/06 1:36:39 PM HST: The only part you would be missing out are the four squares of this square

Azmx 5/16/06 1:36:49 PM HST: on the outer areas of this square

Azmx 5/16/06 1:37:00 PM HST: Do you guys get what I mean?

bwang8 5/16/06 1:37:07 PM HST: yes

Quicksilver 5/16/06 1:37:11 PM HST: Show what u mean on the whiteboard

Quicksilver 5/16/06 1:37:11 PM HST: I dont get it

Azmx 5/16/06 1:37:14 PM HST: bwang you show him

Azmx 5/16/06 1:37:17 PM HST: since you get it

Problems with Classrooms of the Present

- Learning is fragmented
- Teacher is decentered



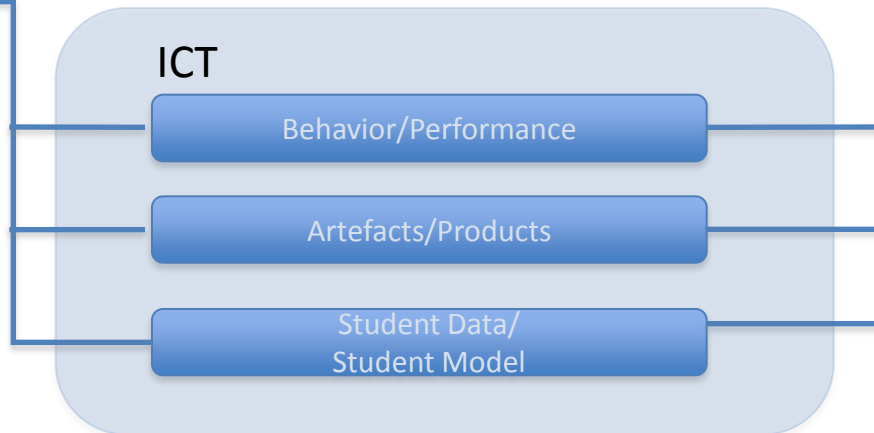
Student

Teacher

Classrooms of the 21st Century

-Learning is integrated with Information Ecologies

-Teacher is centered in classrooms with Computational & Methodological Support



NEXT-TELL

EU FP7 integrating project (Sep-2010 – Aug-2014)

Name:	NEXT-Generation Teaching, Education and Learning for Life
Purpose:	To build a teaching and learning ICT infrastructure for teachers and learners
Funding:	Total of 8.2 m € from EU, CBS share is 550.000 € covering 3 years of postdoc and 3 CAICT faculty
Partners:	12 partners: Joanneum Research, Uni Research, TUG, University of Birmingham, CBS, London Knowledge Lab, KMRC, BOC-AT, BOC-PL, eXact Learning Solutions, talkademy, MTO.
Method	Design-Based Research (DBR) in 15-20 classrooms in Year-1 and 60-80 classrooms by Year-4
Key Point	Teaching and Learning in Classrooms of the 21 st Century

NEXT-TELL Vision

To develop both ICT Tools and Teaching Methods to

- **Develop 21st Century competencies** in addition to subject-matter specific KSAs
- **Personalize learning:** Plan for the individual student
- **Teach adaptively** in the classroom, making good use of ICT
- **Provide evidence-based accounts** for selected learning activities and assessments
- **Be accountable** towards stakeholders (students, parents, policy makers).

CBS PILOT PROJECTS ON TETL

- **DIT-LAB** at Stuen, Howitzvej 60 (Interactive Classroom + Experience Lab)
- **7 Classrooms** at Kilen (Funded from the increased taximeter to CBS)
- **Hardware** for “Classrooms of the 21st Century”
 - Digital interactive whiteboards
 - Power outlets to support one laptop per student
 - Classroom Response Systems (Clickers)
 - Special paint to turn the walls into whiteboards
 - Movable furniture (in the future)
- **Software**
 - <http://teach.cbs.dk>
 - Existing best-of-the-breed TeTL applications
 - NEXT-TELL infrastructure (in the future)
- **Training**
 - Teacher Training Workshops (*in-service teachers*, [CBS LL course](#))
 - PhD Course on TeTL (*pre-service teachers*)

DISCUSSION