

Beyond Competencies

Room for Flair?

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Teaching and Learning

Margaret Mead's Comment:

“We recognize that a human being's most human characteristic is not the ability to learn, which human beings share with many other species, but the ability to teach and store what others have developed and taught them. Learning, which is based on human dependency, is relatively simple.”

Culture and Commitment (1970)

Learning cultures: little danger of anyone straying; little interest in transmitting culture.

Teaching Cultures: more complex, more open to outside influences. Those who knew taught those who did not.

Discipline

What do Teachers Teach?

What do Learners Learn?

Implicit--- notion of change

direction of increasing quality

Changes in:

Knowledge

Skills

Attitudes

Hierarchy----*wisdom/knowledge/information*

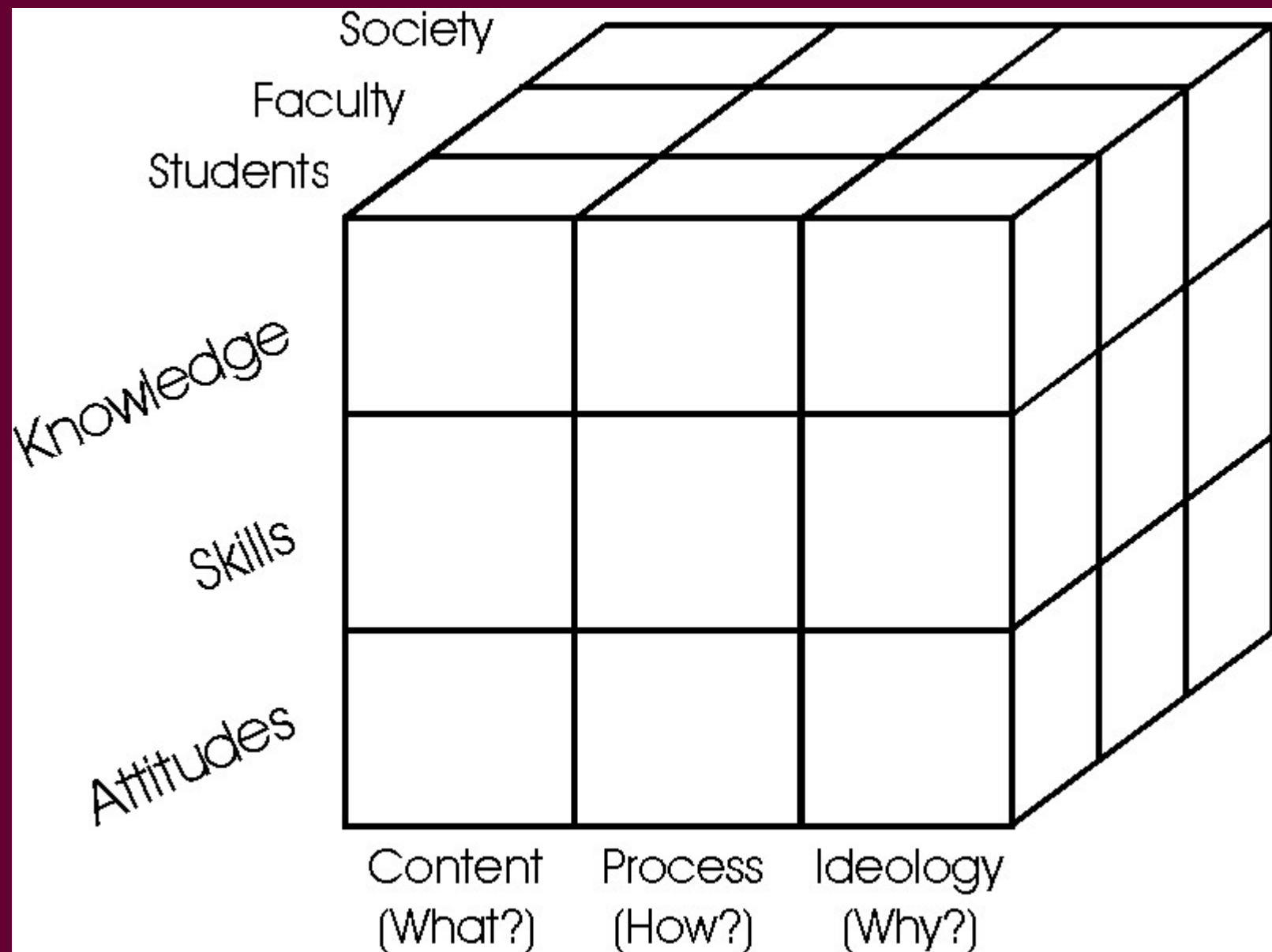
An iceberg floating in the ocean. The tip of the iceberg is above the water line, and the much larger, submerged part is below. The sky is blue with light clouds. The water is dark blue.

Explicit Knowledge

Codified, Published, Transmissible

Tacit Knowledge

Procedures, Experiences, Values



Shifting the Locus of Control

Teacher  Student

Selection

Curriculum

Design

Delivery

Evaluation

Curriculum Design

Objectives:

Instructional

Expressive

Non-embarrassing

Curriculum Delivery

Active/Engaging

Many possible
approaches

Labs, CAL, PBL, SDL
Whatever Acronym you
choose

Evaluation

General Principles

1. Students must learn from the procedures
2. Students must be tested on their strengths as well as their weaknesses
3. Must be consonant with the goals of the program

CONTEXT

Context

Context

Success / Failure

THICK not thin

Elliot Eisner-
Educational Outcomes
Instructional
Expressive

Instructional Objectives/Outcomes

Unambiguously specify what
knowledge/skill student should acquire

Relatively easy to state/assess

Psychometrist's delight

COMPETENCIES

Expressive Objectives/Outcomes

Do not specify precisely WHAT the student should acquire

Permission to Explore

Focus on the Individual

Difficult to Assess

Psychometrist's Nightmare?

Meaningful

Expressive Outcomes

“describes an educational encounter—identifies a situation, a problem, a task in which they ought to engage; but does not specify WHAT –they ought to learn...provides both the teacher and the student with an invitation to explore, defer, or focus on issues that are of peculiar interest or import to the enquirer... An expressive objective is evocative rather than prescriptive”.

Design of a Clinical Trial

For an Introductory Pharmacology Course
(3rd Year Science)

Assessment Criteria clearly laid out

Assessment Criteria

- Required Elements (80)
- Rationale (15)
- Inclusion Criteria(10)
- Exclusion criteria (10)
- Sample Size calculations (10)
- Outcome Measures (10)
- Statistical Analysis (10)
- Critical comments (10)
- References(5)
- Expressive Elements (20)
- Readability
- Imagination
- Flair



SOLARIS BASIAVIT LABORATORIES™

Clinical Trial Proposal for

AURUM®

A new oral tanning product that produces healthy, golden, sun-kissed skin

CONFIDENTIAL

Submitted by
Carolyn Whiting
Head of Clinical Trial Division at *Solaris Basiavit Laboratories™*

Clinical Trials

(about Cutaneous Warts)

FOR
DUMMIES

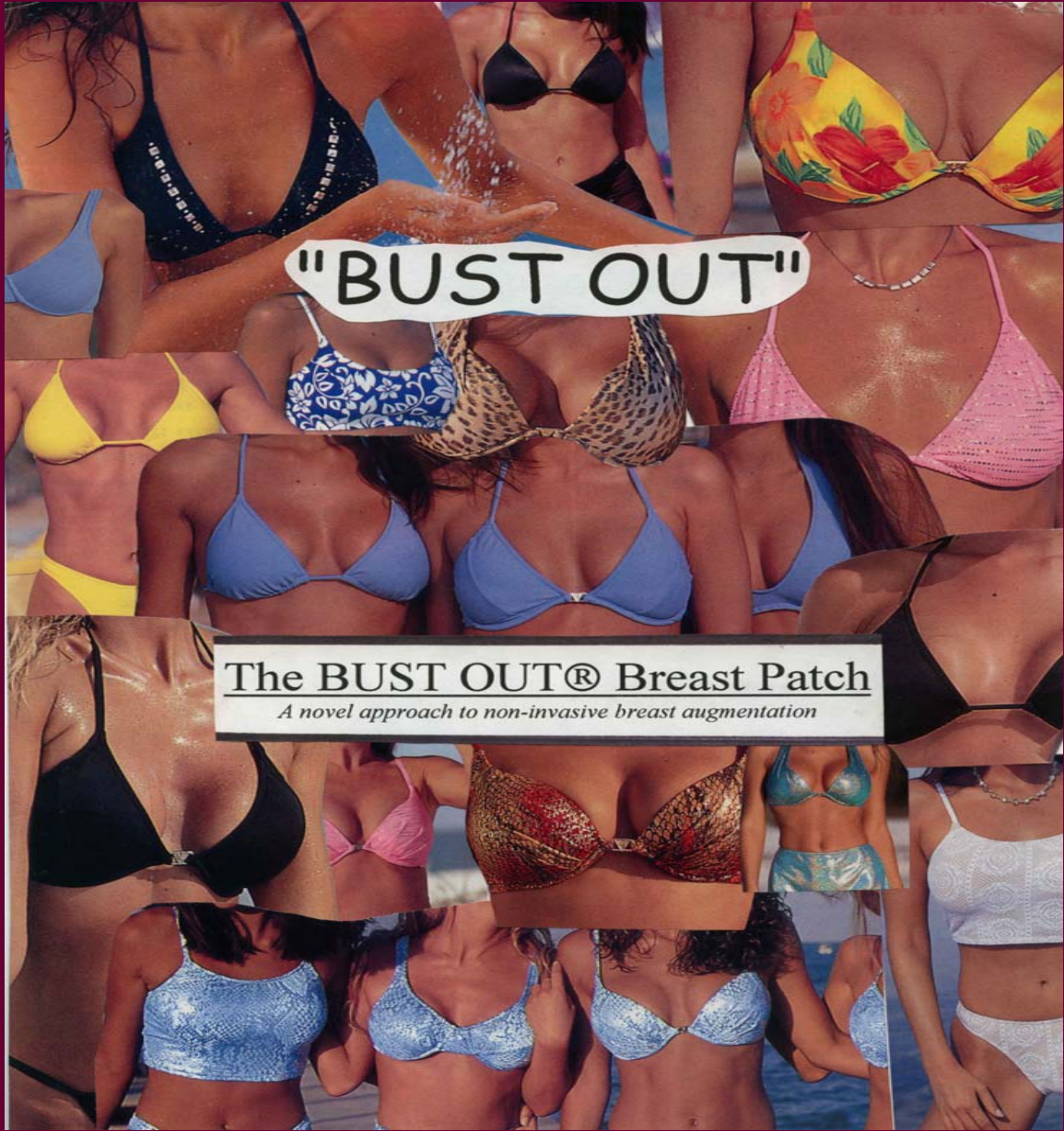
**A Reference
for the
Rest of Us!**

WARTS....*verrucae*
warts....**VERRUCAE?**

Chantale Blattler
Biology & Pharmacology Entrepreneur

Features step-by-step
instructions and
easy-to-follow
guidelines.





"BUST OUT"

The BUST OUT® Breast Patch
A novel approach to non-invasive breast augmentation

Grading by Students

B- (1)

B (3)

B+ (6)

A- (6)

A (10)

A+ (18)

Design of a Novel Problem

For Graduate Students

Physiological Basis of Drug Therapy

Students selected a Clinical Condition

Wrote a Problem for a PBL course

Expected Objectives

Tutor Guides

Student Comments

Really enjoyed this part. Finding a good topic was challenging, but interesting to put the problem together (8/10)

Gave students the ability to visualize the path from mechanism of disease to drug treatment and the physiological /pharmacological rationale (8/10)

Was a mini patho physiology course on its own. Allowed a lot of creativity—allowed me to think outside the “traditional” approach to learning science (9/10)

Really enjoyed the discussion that followed (9/10)

JYP exercise:

One of the unpleasant realities of modern research is the frequency with which one is expected to defend one's turf or justify one's existence. This simulation will help you get a flavor of this alarming trend. All of you will regard yourself as members of a research institute developing novel therapeutic approaches to a specific condition. You will opt to be the leader of ONE division in an Institute under fiscal strain. One or more divisions will face the axe. It is your responsibility to ensure that your division is spared the axe.

Student Comments on JYP

- Excellent approach;stimulating (10/10)
- Required the most work,but no more learning benefit;forced me to think very critically of other students' "research areas";forced me to critically examine my own area;provided a good overview of ulcer research beyond basic physiology-pharmacology of ulcers themselves (9/10)
- Interesting to research different yet related area and to learn how to approach it from another angle (8/10)
- Creative (8/10)

The Targeted Oral Exam

For 3rd/4th year students

Liberal Arts

Special Topic

Brief Abstract (with references)

Targeted Oral

Witnessed by others

Student Assessment

Objectives met (10 point scale 1 (not met) to 10 (extremely well met):

5 (1)

8 (1)

9 (2)

10 (19)

Sample Comments

- An amazing experience! A great way to show knowledge and understanding without the monotony of writing an essay. Thank You!
- Phenomenal idea
- My favourite part of the course.
- Scary as hell, but fun after the fact
- The single, best and most valuable component of the course.
- Worried initially, but once it began, somewhat more relaxed.
- Although stressful and intimidating, it was a great experience
- Useful for the particular student, but several in a row did not have much value for the observers.

Menu Items

For Medical Students (Final Year)

List of options given

Students selected (one or more):

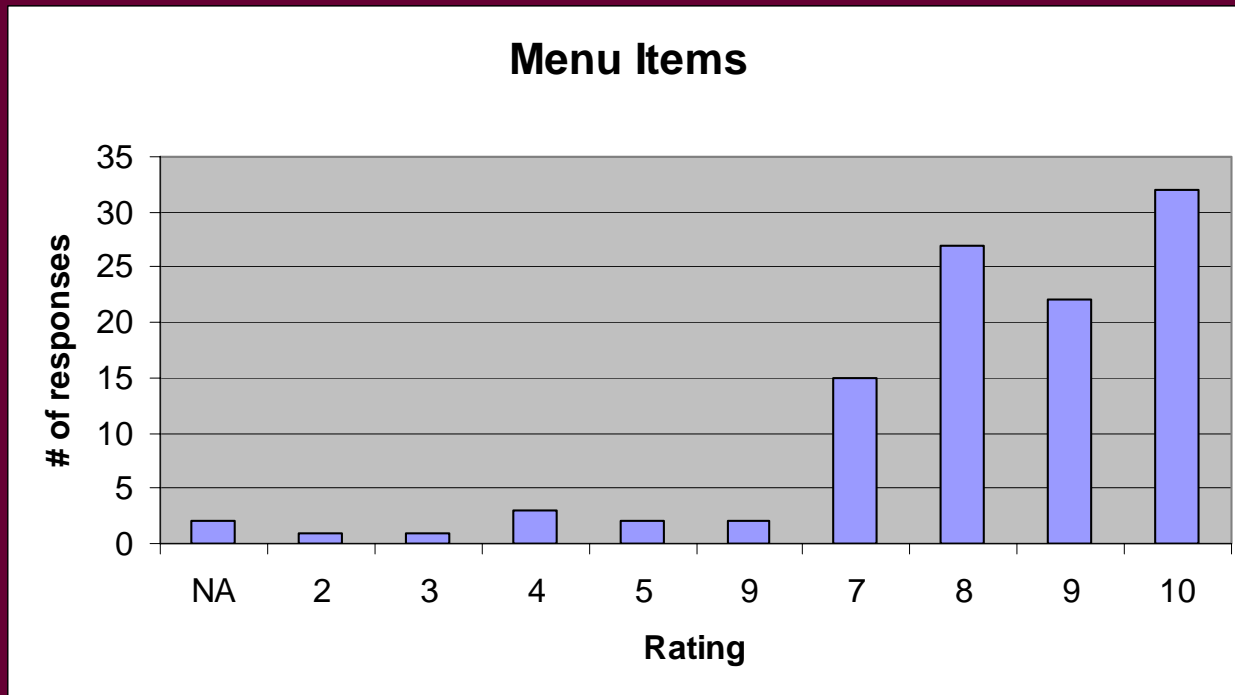
Book or Movie Reviews/Articles for
Newspapers/Poems/Art Work/
Pamphlets for Patients

Samples

- Review of Movies (Girl Interrupted, Awakenings)
- Review of play “Wit”
- Review of Rohinton Mistry’s Family Matters
- The Not-so-Happy –Meal-Fast Foods

MENU ITEMS: to offer the students an opportunity to explore one issue in depth and to develop skills analyzing, synthesizing and communicating information about an issue or idea in an accessible and reasonably concise manner.

Average: 8.36 Median: 9 Mode: 10



Coda

- Educational outcomes: Instructional/Expressive
- Instructional outcomes easier to define/assess
- Expressive outcomes—complex/individual
- Student's particular interests emphasized
- Quality of Learning experience enhanced
- Competencies **MUST** be assessed
- **Is that enough?**

Beyond Conventional Notions of Validity

- Validity –standard approach
- Criterion
- Content
- Construct

- **CONSEQUENTIAL VALIDITY**

Ah, but a man's reach should exceed
his grasp, /
Or what's a heaven for?

Robert Browning, Andrea del Sarto, 96

Leaf, blossom or bole?

