



**Organizing a Barn Raising: Creating a Significant Learning Experience, May 16, 2007**

L. Dee Fink, Ph.D., National Consultant in Higher Education

*As a courtesy to our speaker,  
please turn all cell phones to silent or vibrate. Thank You!*

**BARN RAISING:  
CREATING SIGNIFICANT  
LEARNING EXPERIENCES**

**A Presentation by:**

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**OU Health Sciences Center**

**May 16, 2008**



## **"DESIGNING INSTRUCTION":**

Can refer to instruction at the level of the...

- **Course**
- **Curriculum or program**
- **Doctor/Patient Relationship**



## **Introductory Comments**

### **Medical & Health Sciences Education:**

- **Very Important**
- **Some serious cost/quality issues**
  - **Very costly**
  - **Uneven/low quality**



## American Health Care:

### ➤ Cost:

- The US spends **more than double** the median of OECD countries.
- US = **\$4,178 per capita/year**
- **Next highest?**
  - **Switzerland: \$2,794**
- **Canada: \$2,312**
- **Median: \$1,783**

Source: Health Affairs, Vol 20, No. 3 (May-June 2001), pp. 219-232.



## American Health Care:

### ➤ Cost

### ➤ Quality:

- **US ranks 12<sup>th</sup> out of 13 developed countries** (on 16 health indicators)
- **Canada: Ranks 3<sup>rd</sup> highest**

Source: "Is US Health Care Really the Best?", JAMA, 26 July 2000, pp. 483-485.



## **American Health Care:**

### ➤ **Quality (cont):**

#### **C. Cause of Health Problems:**

- **People's life style? Or medical care?**
- **"225,000 deaths per year from iatrogenic causes"**
  - Unnecessary surgery
  - Nosocomial infections in hospitals
  - Other errors in hospitals
  - Medication errors in hospitals
  - Non-error, adverse effects of medications

Source: "Is US Health Care Really the Best?", JAMA, 26 July 2000, pp. 483-485.



## **American Health Care:**

### **One Major Cause of the Problem?**

- **Health Care Providers don't know how to work together!**

Source: "The State of the Nation's Health", Dartmouth Medicine, Spring 2007, pp. 26-35.



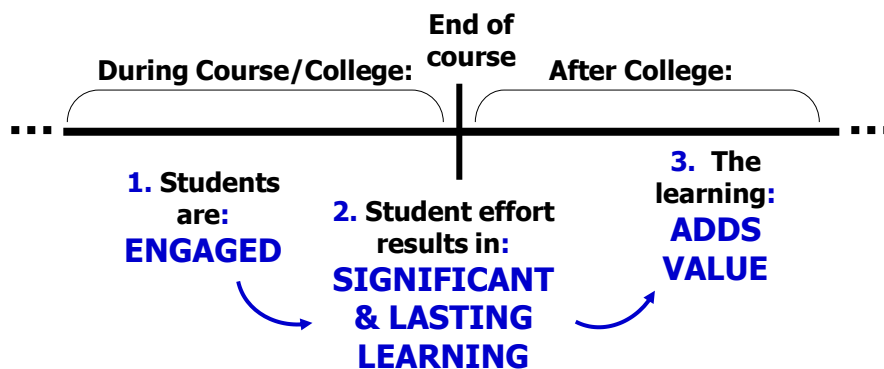
## PARADIGM SHIFT IN COLLEGE TEACHING

From: "TEACHING"

To: "LEARNING"

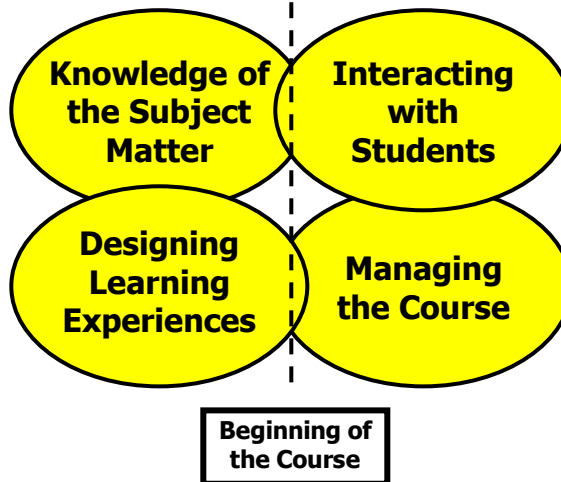
- What is the difference?
- Leads to new questions about our work as teachers:
  - What can we do **differently** that will improve **student learning**?

## 3 FEATURES OF A HIGH QUALITY LEARNING EXPERIENCE





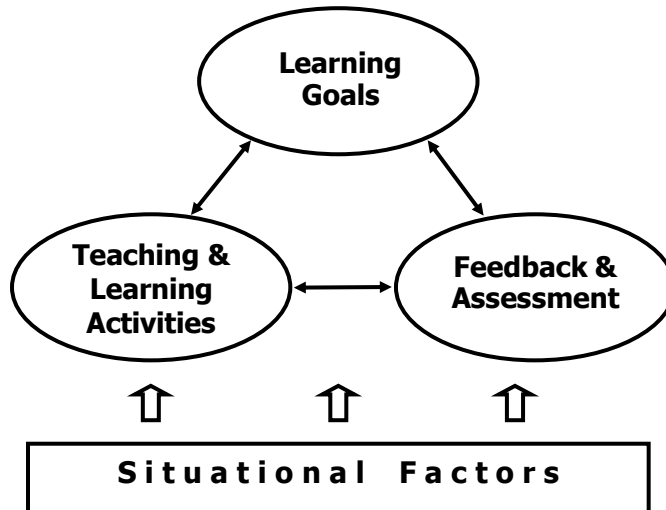
## FUNDAMENTAL TASKS OF TEACHING



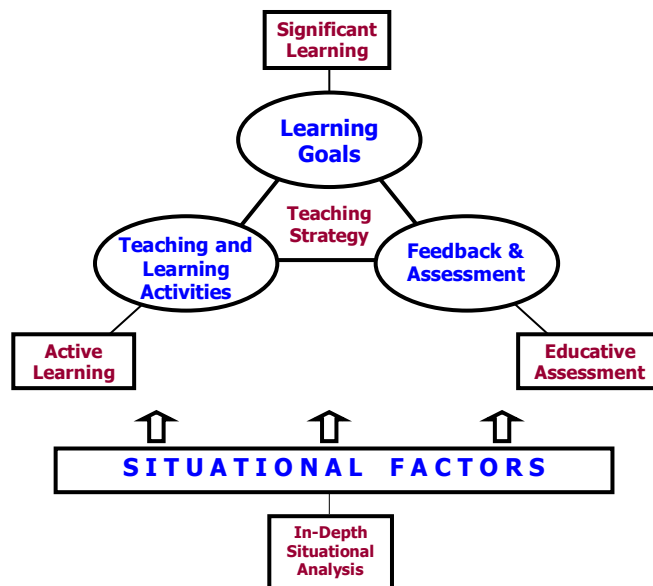
## 3 Ways of Designing Courses:

1. "List of Topics"
2. "List of Activities"
3. Need a way of designing courses that is:
  - Systematic
  - Integrated
  - Learning-Centered

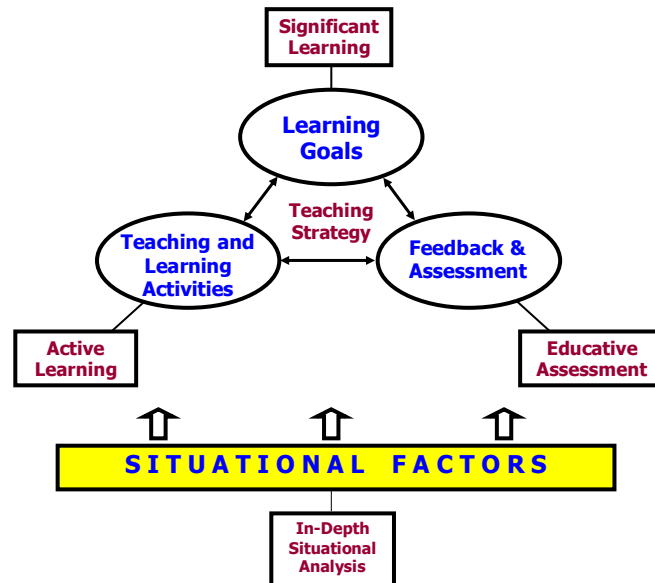
## INTEGRATED COURSE DESIGN: Key Components



## Criteria of "GOOD" Course Design



## Criteria of "GOOD" Course Design



Creating Significant Learning Experiences



### Situational Factors:

Collecting information about...

- **Specific Context**
- **Expectations** by people outside the course
- Nature of the **Subject**
- Nature of **Students**
- Nature of **Teacher**





## Situational Factors

- **Specific Context of the Teaching/Learning Situation**
  - Number of students
  - Level of course
  - Time structure
  - Delivery: Live – Hybrid – Online
- **Expectations of Others:**
  - What expectations are placed on this course or curriculum by:
    - Society?
    - The University, College and/or the Department?
    - The Profession?



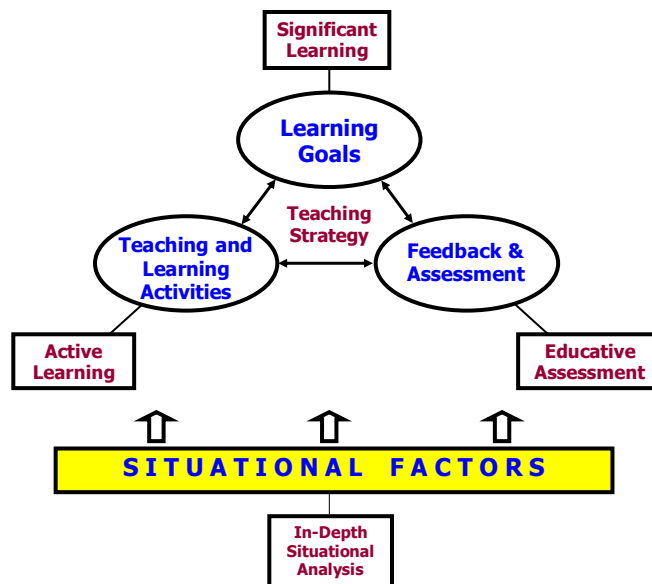
- **Nature of the Subject**
  - Primarily theoretical, practical, or some combination?
  - Convergent or divergent?
  - Important changes or controversies occurring?
- **Characteristics of the Learners**
  - Their life situation (e.g., working, family, professional goals)?
  - Their prior knowledge, experiences, and initial feelings?
  - Their learning goals, expectations, and preferred learning styles?



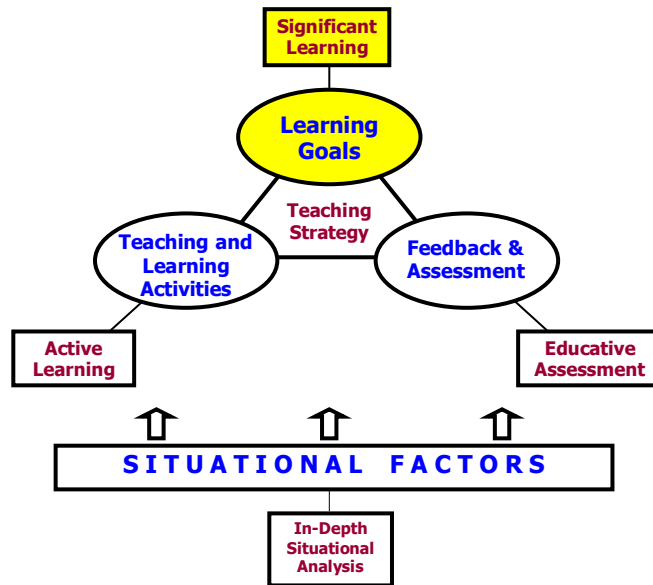
### • Characteristics of the Teacher(s)

- My beliefs and values about teaching and learning?
- My attitude toward: the subject, students?
- My teaching skills?
- My level of knowledge or familiarity with this subject?

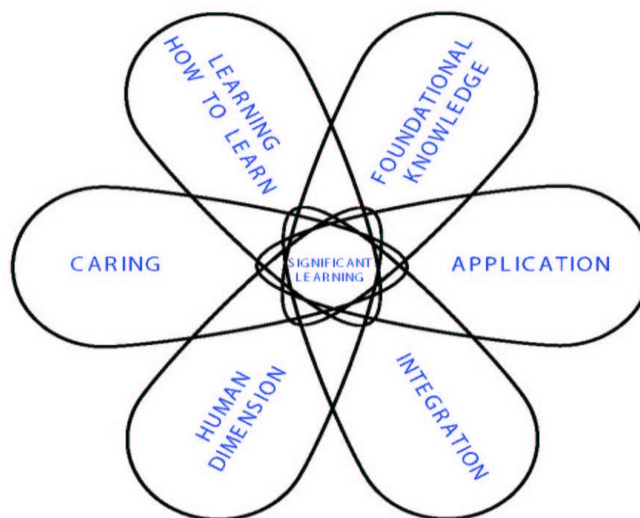
## Criteria of "GOOD" Course Design



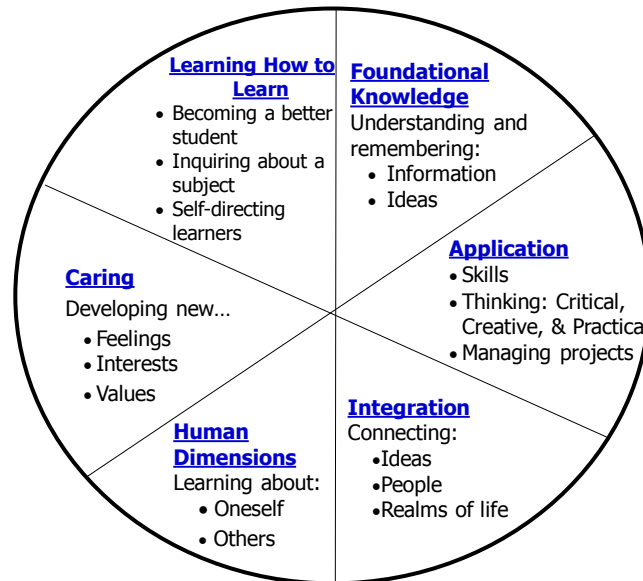
## Criteria of "GOOD" Course Design



## Taxonomy of Significant Learning



## Taxonomy of Significant Learning



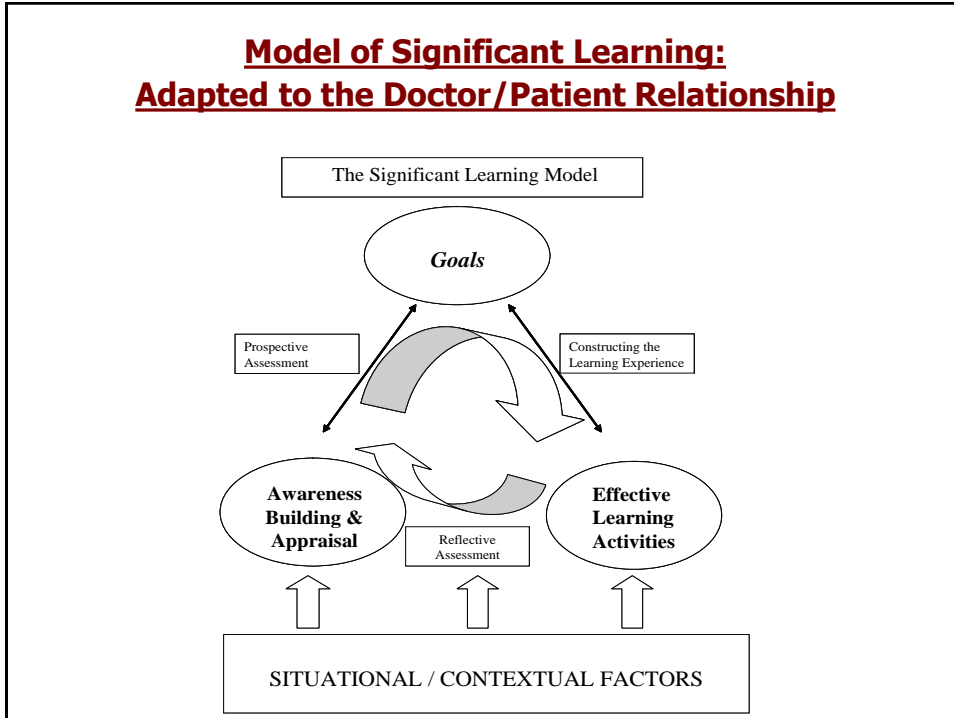
### Creating Significant Learning Experiences



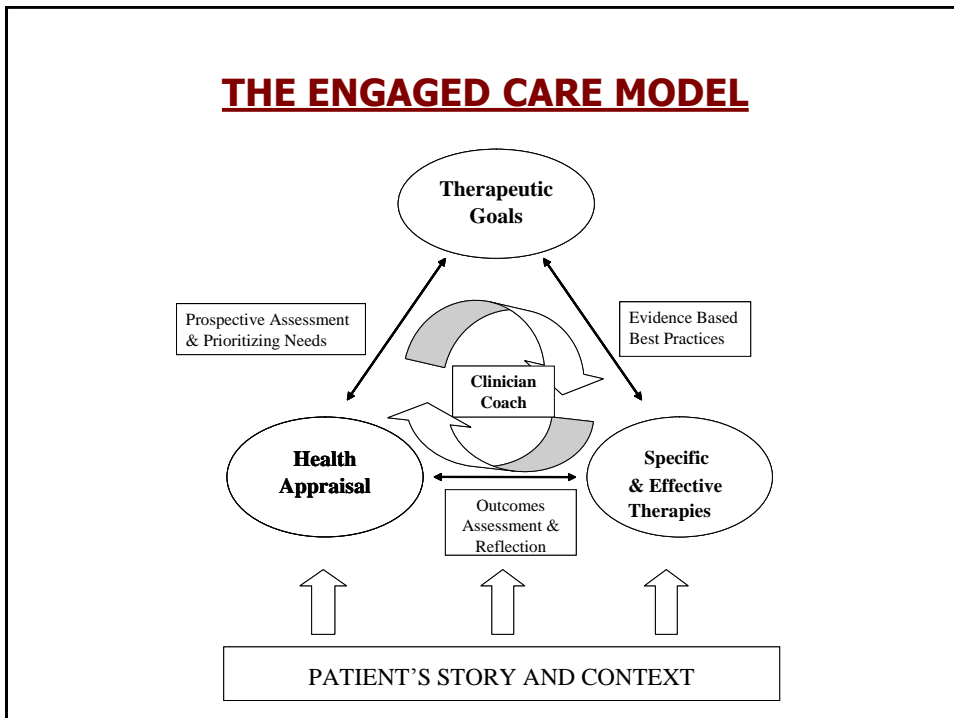
In a course with **significant learning**, students will:

- 1. Understand and remember** the key concepts, terms, relationship, etc.
- 2. Know how to use** the content.
- 3. Be able to relate** this subject to other subjects.
- 4. Understand the personal and social** implications of knowing about this subject.
- 5. Value** this subject and further learning about it.
- 6. Know how to keep on learning** about this subject, after the course is over.

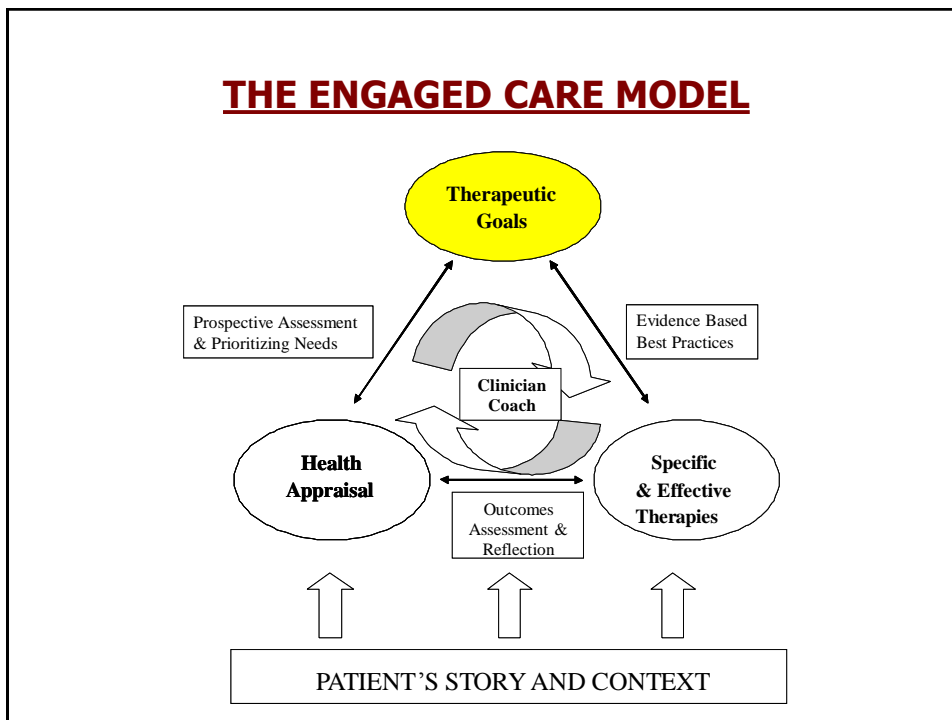
**Model of Significant Learning:  
Adapted to the Doctor/Patient Relationship**



**THE ENGAGED CARE MODEL**



## THE ENGAGED CARE MODEL



## THERAPEUTIC LEARNING GOALS

### HUMANISTIC

1. Talk with family members about her illness, her feelings, fears and hopes.
2. Regularly attend her community diabetes support group.
3. Begin cognitive behavioral therapy to uncover beliefs about self competence.

### CARING

1. Work with cognitive therapist to overcome self defeating beliefs and practices that sap motivation.
2. In therapy, uncover and realign values & motives related to self care, work, home, family, and friends.

## **THERAPEUTIC LEARNING GOALS (cont.)**

### **INTEGRATION**

1. Understand health and social systems involved in diabetes care.
2. Have a social support network and other resources.
- 3. Have a work/home schedule that allows time for exercise and meal preparation.**

### **SKILLS**

1. Complete an organizational and time management workshop and use the tools.
2. Complete diabetic meal planning and cooking class for people on a limited budget.

## **THERAPEUTIC LEARNING GOALS (cont.)**

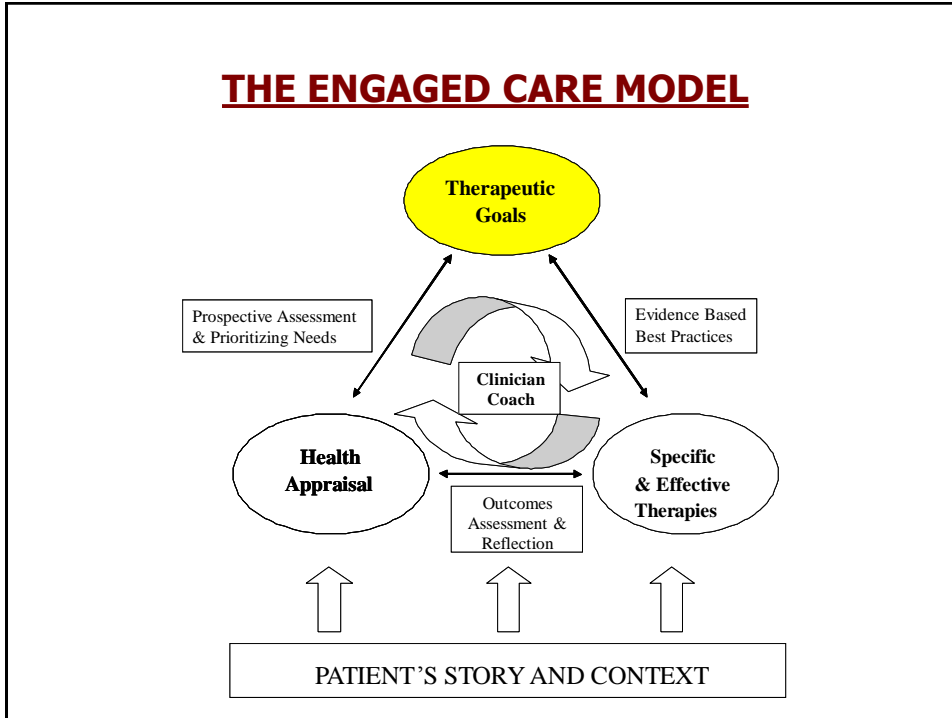
### **SELF-DIRECTED LEARNING**

1. Implement self monitoring of diabetic markers and keep in a database.
2. Actively participate in regular self-assessment and request feedback from provider and others regarding achievement of goals.

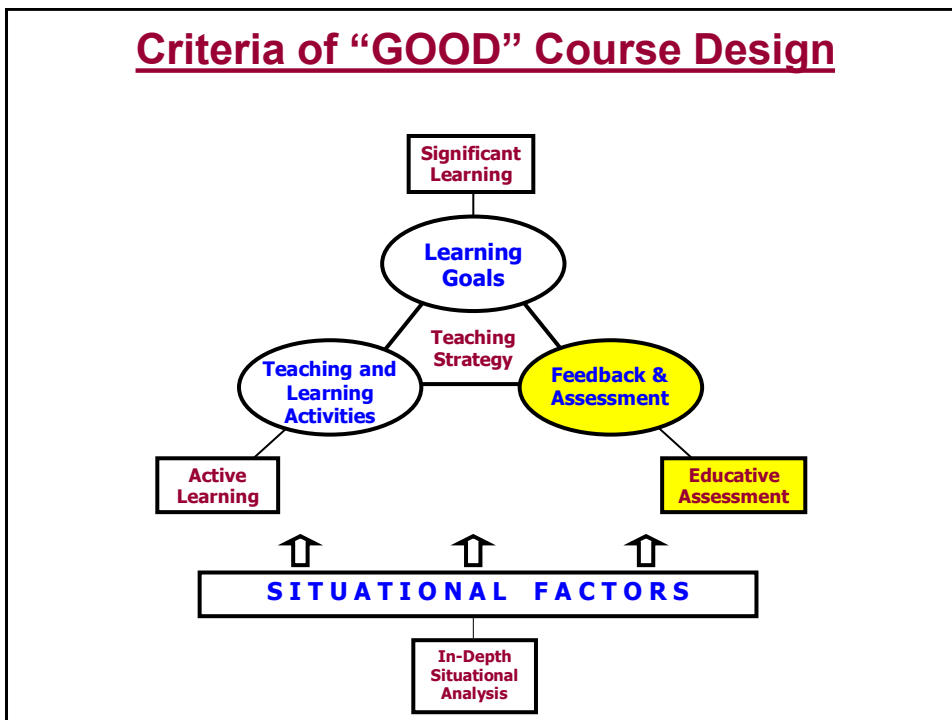
### **FOUNDATIONAL KNOWLEDGE**

1. Obtain reliable websites from American Diabetes Assn. and use them.
2. Spend 1 hour weekly reviewing information on self care, management, diet, and exercise.

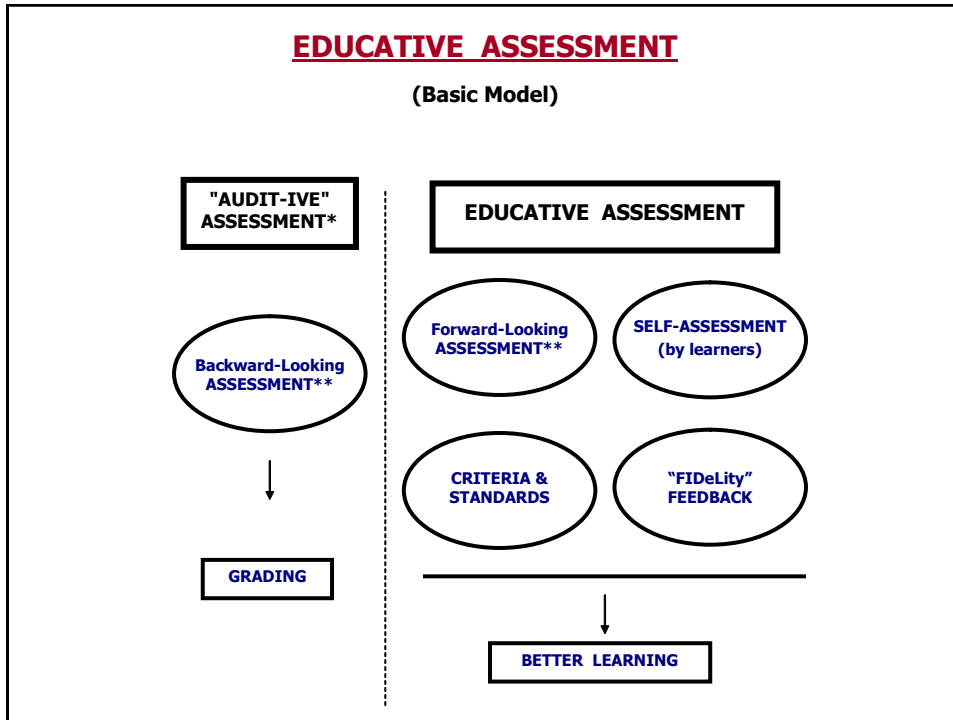
## THE ENGAGED CARE MODEL



## Criteria of "GOOD" Course Design







Creating Significant Learning Experiences



## **"FIDeLity" FEEDBACK**

= Feedback that is...

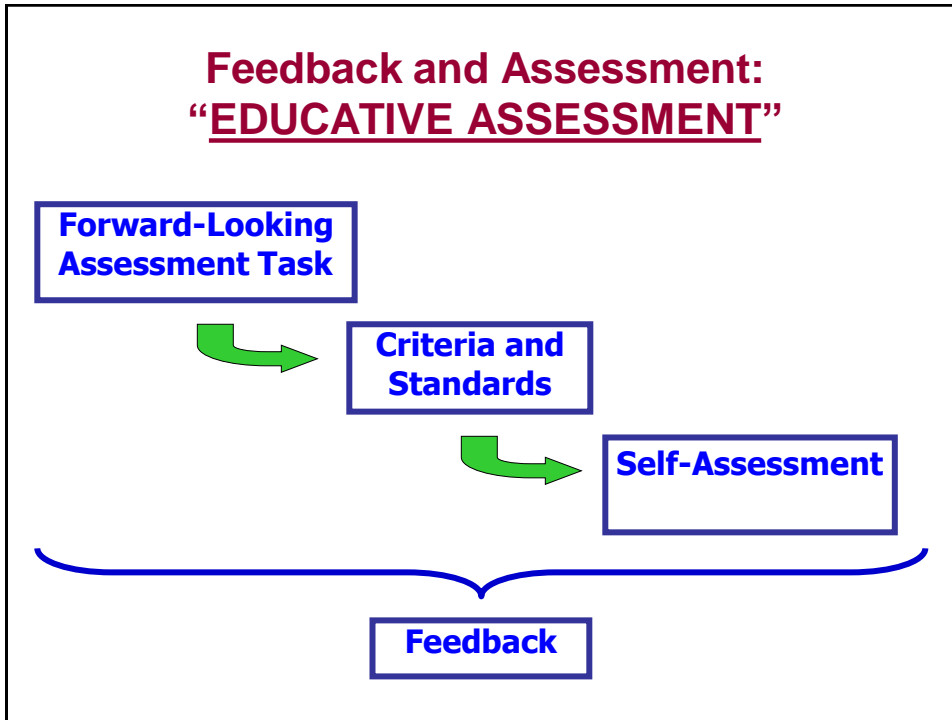
**Frequent**

**ImmEDIATE**

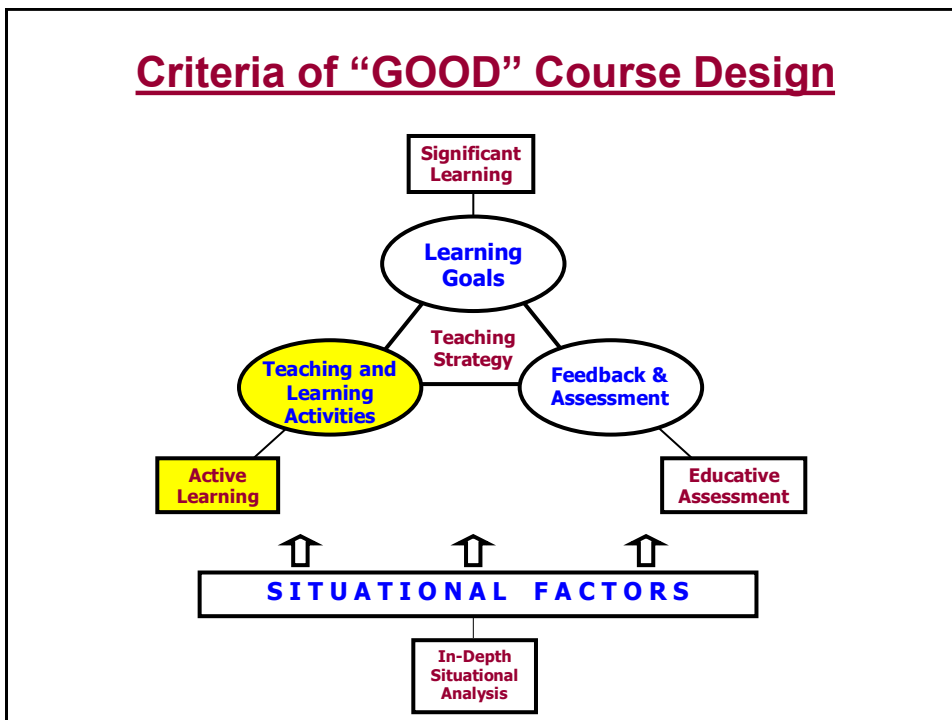
**Discriminating** (based on criteria)

**Done Lovingly** (or supportively)

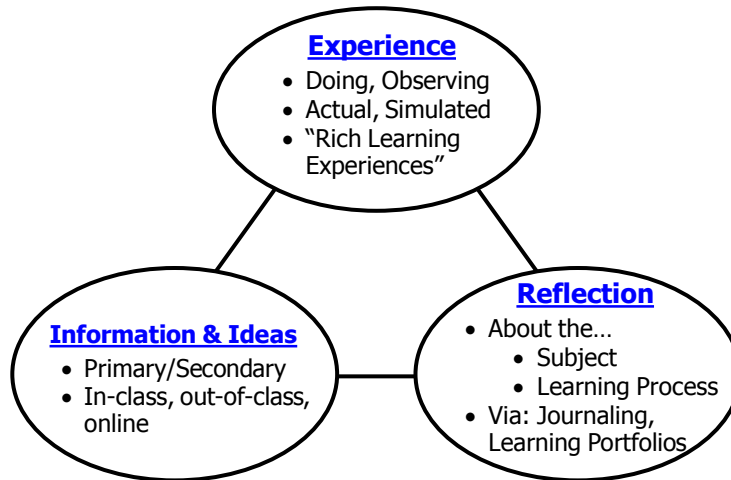
## Feedback and Assessment: “EDUCATIVE ASSESSMENT”



## Criteria of “GOOD” Course Design



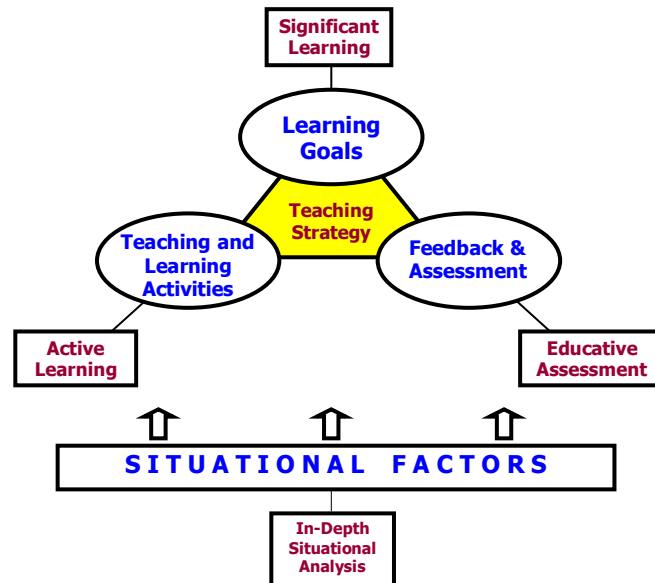
## Holistic Active Learning



## Multiple Activities that Promote ACTIVE LEARNING

	GETTING INFORMATION & IDEAS	EXPERIENCE		REFLECTIVE DIALOGUE, with:	
		"Doing"	"Observing"	Self	Others
<b>DIRECT</b>	<ul style="list-style-type: none"> <li>• Original data</li> <li>• Original sources</li> </ul>	<ul style="list-style-type: none"> <li>• Real Doing, in authentic settings</li> </ul>	<ul style="list-style-type: none"> <li>• Direct observation of phenomena</li> </ul>	<ul style="list-style-type: none"> <li>• Reflective thinking</li> <li>• Journaling</li> </ul>	<ul style="list-style-type: none"> <li>• Live dialogue (in or out of class)</li> </ul>
<b>INDIRECT, VICARIOUS</b>	<ul style="list-style-type: none"> <li>• Secondary data and sources</li> <li>• Lectures, textbooks</li> </ul>	<ul style="list-style-type: none"> <li>• Case studies</li> <li>• Gaming, Simulations</li> <li>• Role play</li> </ul>	<ul style="list-style-type: none"> <li>• Stories (can be accessed via: film, literature, oral history)</li> </ul>		
<b>ONLINE</b>	<ul style="list-style-type: none"> <li>• Course website</li> <li>• Internet</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher can assign students to "directly experience" ...</li> <li>• Students can engage in "indirect" kinds of experience online</li> </ul>	<ul style="list-style-type: none"> <li>• Students can reflect, and then engage in various kinds of dialogue online.</li> </ul>		

## Criteria of “GOOD” Course Design



Creating Significant Learning Experiences



## INTEGRATING THE COURSE

1. 3-Column Table
2. Weekly Schedule
3. String of Activities
4. Teaching Strategy



## **INTEGRATING THE COURSE**

### **1. 3-Column Table**

2. Weekly Schedule
3. String of Activities
4. Teaching Strategy



**Learning Goals:    Learning Activities:    Ass'm't Activities:**

<b>1.</b>		
<b>2.</b>		
<b>3.</b>		
<b>4.</b>		
<b>5.</b>		
<b>6.</b>		



## **INTEGRATING THE COURSE**

1. 3-Column Table
- 2. Weekly Schedule**
3. String of Activities
4. Teaching Strategy

**Week #:    Mon                      Wed                      Fri**

<b>1</b>			
<b>2</b>			
<b>3</b>			
<b>4</b>			
<b>..</b>			
<b>..</b>			
<b>12</b>			
<b>13</b>			
<b>14</b>			
<b>15</b>			

## INTEGRATING THE COURSE

1. 3-Column Table
2. Weekly Schedule
- 3. String of Activities**
4. Teaching Strategy

<b>1</b>			
..			
..	X		
<b>7</b>			
<b>8</b>		X	
<b>9</b>	X		X
<b>10</b>		X	
<b>11</b>			
<b>12</b>		X	X
<b>13</b>			
<b>14</b>			
<b>15</b>		X	

## **INTEGRATING THE COURSE**

1. 3-Column Table
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Creating Significant Learning Experiences



### **TEACHING STRATEGY:**

- A particular **COMBINATION** of learning activities...
- arranged in a particular **SEQUENCE**

#### **Two Examples:**

- Problem-based learning
- Team-based learning





## "CASTLE-TOP" DIAGRAM:

### A Tool for Identifying Your TEACHING STRATEGY

	Mon	Wed	Fri	Mon	Wed	Fri
<b>In-Class Activities:</b>	?	?				<b>Assessm't &amp; Feedback</b>
<b>Out-of-Class Activities:</b>		?	?			

## TEACHING STRATEGIES

<b>In-class:</b>	Lecture	Lecture	Lecture	Exam
<b>Out-of-class:</b>	Read text	Homework exercises	Review	

### QUESTION:

- This strategy creates a high likelihood that most students will...
  1. Be *exposed to* the content.
  2. *Understand* the content.
  3. Be able to *use* the content.
  4. *Value* the content.

## TEACHING STRATEGIES

In-class:		Readiness Assurance Test: • Individual • Group		Application problems (Small Groups)		Exam: • Content • <u>Application</u> Culminating Project
Out-of-class:	Read text		Homework exercises		Review	

### QUESTION:

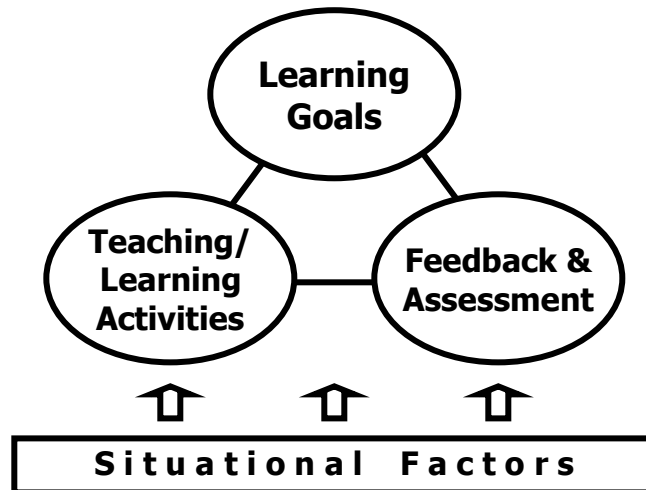
- This strategy creates a high likelihood that most students will...
  1. Be *exposed to* the content.
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  4. *Value* the content.

## INTEGRATING THE COURSE

1. 3-Column Table
2. Weekly Schedule
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## Model of Integrated Course Design



## **QUESTIONS OR COMMENTS??**



## Does It Make a Difference?

- **Bill Weeks, University of Missouri at Rolla**
- **Course: Coding in Computer Science**
- **Small class (18 students), traditional time structure (M-W-F)**
- **Initially: Lecture + homework**
- **Results: Students overwhelmed by complexity – frustration – apathy – low course evaluations**



## Changes Made:

1. **Completely re-wrote his learning goals:** (examples)
  - For a given communication channel, students will be able to compute the maximum rate of reliable transmission
  - Students will learn how to work effectively in a group setting.
  - Students will be able to direct their own learning in relation to understanding, designing, and evaluating new codes.
2. **New teaching strategy:** Used TBL
3. **Used reflective writing:** Learning portfolios
4. **Oral presentations**
5. **Had students re-submit their homework**

**RESULTS:**

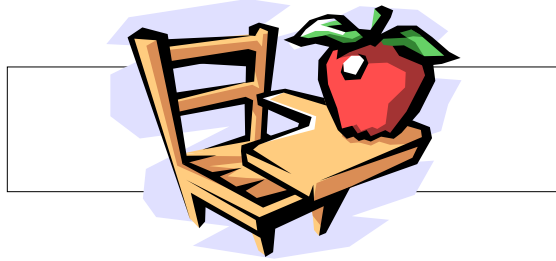
- **Students did the readings, and did as well as before on exams of Foundational Knowledge.**
- **TEACHER:** "...drastic improvement in student morale...They worked harder – and reported enjoying it more."
- **STUDENTS:**
  - **...an interesting learning experience I will never forget...provided me with knowledge to carry out independent study.**
  - **I enjoyed this course to the fullest...course was entertaining and at the same time enlightening.**

**TEACHER'S REACTION:**

- **"Teaching such an excited group of students was an unforgettable experience.**
- **It made my job seem worthwhile and very fulfilling.**
- **I will be feeding off that student excitement for years."**



THE END!



*Health Care Education:*

*Let's make it all that it can be and needs to be!*