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## IDT?

Analysis, design, development, and evaluation of effective learning environments

Instructional consulting and performance support in the workplace

Improving learning, using a variety of means

- Master of Science (10 online courses)
- Doctor of Education (18 courses and dissertation)
- Certificate in Technology in Instruction (4 online courses)

[idt.memphis.edu](http://idt.memphis.edu)

- Survey of Instructional Design and Development
- Computer-Based Instruction in Education
- Classroom Teaching with Technology
- The Instructional Design Process
- Principles and Applications of Instructional Design
- Seminar in Online Instruction
- Seminar in Computer-Based Learning Environments
- Theories and Models of Instructional Design
- Development of Interactive Learning Environments
- Instructional Text Design

- UT Memphis
- FedEx
- Regions Bank
- Buckman Labs
- Hilton
- International Paper
- Methodist Le Bonheur Hospital
- First Tennessee Bank
- Yum! Foods (KFC, Pizza Hut)
- St. Jude Children's Research Hospital
- Yum Foods
- Booz Allen Hamilton
- AutoZone

- instructional designer
- instructional consultant
- performance support specialist
- instructional technologist
- learning technologist
- trainer
- curriculum developer

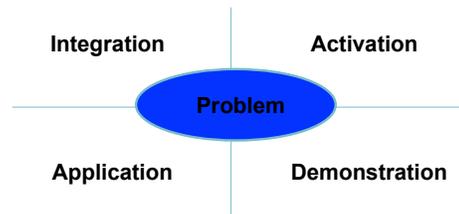


### First Principles of Instruction

Learning is facilitated when ...

- the learner is engaged in solving a real-world **problem**.
- new knowledge builds on the learner's **existing knowledge**.
- new knowledge is **demonstrated** to the learner.
- new knowledge is **applied** by the learner.
- new knowledge is **integrated** into the learner's world.

### First Principles of Instruction



### Problem



Learning is facilitated when ...

- the learner is engaged in solving a real-world problem.
- The learner is engaged at the problem or task level not just the operation or action level.
- the learner solves a progression of problems.
- the learner is guided to an explicit comparison of problems.

Problems promote acquisition, elaboration, and use of mental models rather than only associative memory.

### Activation



Learning is facilitated when ...

- the learner is directed to recall, relate, describe, or apply knowledge from relevant past experience that can be used as a foundation for the new knowledge.
- the learner is provided relevant experience that can be used as a foundation for the new knowledge.

Activates a mental model appropriate for restructuring or tuning.

### Demonstration



Learning is facilitated when ...

- the learner is shown as well as told.
- the demonstration is consistent with the learning goal.
- the learner is directed to relevant information.
- the learner is shown multiple representations.
- the learner is directed to explicitly compare alternative representations.
- media plays a relevant instructional role.

Instantiates the mental model.

### Application

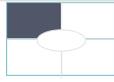


Learning is facilitated when ...

- the learner is required to use his/her new knowledge to solve problems.
- this problem solving activity is consistent with the learning goal.
- the learner is shown how to detect and correct errors.
- the learner is guided in his/her problem solving by appropriate coaching that is gradually withdrawn.

Enables the student to restructure and tune the mental model.

## Integration



Learning is facilitated when ...

- the learner can demonstrate his/her new knowledge and skill.
- the learner can reflect on, discuss, and defend his/her new knowledge.
- the learner can create, invent, and explore new and personal ways to use his/her new knowledge.

Promotes association among mental models and increased generalizability.

## Seven Principles For Good Practice in Undergraduate Education

by *Arthur W. Chickering and Zelda F. Gamson*

Arthur Chickering is Distinguished Professor of Higher Education at Memphis State University. On leave from the Directorship of the Center for the Study of Higher Education at Memphis State, he is Visiting Professor at George Mason University. Zelda Gamson is a sociologist who holds appointments at the John W. McCormack Institute of Public Affairs at the University of Massachusetts-Boston and in the Center for the Study of Higher and Postsecondary Education at the University of Michigan.

## Seven Principles of Good Practice

### 1. Encourages Contact Between Students and Faculty

Frequent student-faculty contact in and out of classes is the most important factor in student motivation and involvement. Faculty concern helps students get through rough times and keep on working.

Knowing a few faculty members well enhances students' intellectual commitment and encourages them to think about their own values and future plans.

## Seven Principles of Good Practice

### 2. Develops Reciprocity and Cooperation Among Students

Learning is enhanced when it is more like a team effort than a solo race. Good learning, like good work, is collaborative and social, not competitive and isolated.

Working with others often increases involvement in learning. Sharing one's own ideas and responding to others' reactions sharpens thinking and deepens understanding.

## Seven Principles of Good Practice

### 3. Encourages Active Learning

Learning is not a spectator sport. Students do not learn much just by sitting in classes listening to teachers, memorizing prepackaged assignments, and spitting out answers. They must talk about what they are learning, write about it, relate it to past experiences and apply it to their daily lives.

They must make what they learn part of themselves.

## Seven Principles of Good Practice

### 4. Gives Prompt Feedback

Knowing what you know and don't know focuses learning. Students need appropriate feedback on performance to benefit from courses. When getting started, students need help in assessing existing knowledge and competence.

In classes, students need frequent opportunities to perform and receive suggestions for improvement. At various points during college, and at the end, students need chances to reflect on what they have learned, what they still need to know, and how to assess themselves.

**Seven Principles of Good Practice**

## 5. Emphasizes Time on Task

Time plus energy equals learning. There is no substitute for time on task. Learning to use one's time well is critical for students and professionals alike. Students need help in learning effective time management.

Allocating realistic amounts of time means effective learning for students and effective teaching for faculty. How an institution defines time expectations for students, faculty, administrators, and other professional staff can establish the basis for high performance for all.

**Seven Principles of Good Practice**

## 6. Communicates High Expectations

Expect more and you will get more. High expectations are important for everyone-for the poorly prepared, for those unwilling to exert themselves, and for the bright and well motivated.

Expecting students to perform well becomes a self-fulfilling prophecy when teachers and institutions hold high expectations of themselves and make extra efforts.

**Seven Principles of Good Practice**

## 7. Respects Diverse Talents and Ways of Learning

There are many roads to learning. People bring different talents and styles of learning to college. Brilliant students in the seminar room may be all thumbs in the lab or clinic.

Students rich in hands-on experience may not do so well with theory. Students need the opportunity to show their talents and learn in ways that work for them. Then they can be pushed to learning in new ways that do not come so easily.

**Alignment****Objectives  
Instruction  
Assessment****Analysis  
Design  
Development  
Implementation  
Evaluation****Writing Effective  
Learning Objectives**

### What is a learning objective?

- A learning objective is a written statement that **specifically identifies what one will learn from a course.**
- A learning objective is:
  - Related to intended outcomes, **not** the process for achieving those outcomes
  - **Specific and measurable**
  - Concerned with the **student**, not the instructor

### Bloom's Taxonomy of the Cognitive Domain

Bloom's taxonomy of cognitive learning, originated by Benjamin Bloom and collaborators in the 1950's, describes several categories of cognitive learning.

ORIGINAL BLOOM COGNITIVE TAXONOMY	
Category	Description
Knowledge	Ability to recall previously learned material.
Comprehension	Ability to grasp meaning, explain, restate ideas.
Application	Ability to use learned material in new situations.
Analysis	Ability to separate material into component parts and show relationships between parts.
Synthesis	Ability to put together the separate ideas to form new whole, establish new relationships.
Evaluation	Ability to judge the worth of material against stated criteria.

This taxonomy was revised in 2001 by Anderson and Krathwohl to change the category names from nouns to verbs, and to switch the Evaluation and Synthesis levels in the hierarchy.

REVISED ANDERSON AND KRATHWOHL COGNITIVE TAXONOMY	
Category	Description
Remember	Ability to recall previously learned material.
Understand	Ability to grasp meaning, explain, restate ideas.
Apply	Ability to use learned material in new situations.
Analyze	Ability to separate material into component parts and show relationships between parts.
Evaluate	Ability to judge the worth of material against stated criteria.
Create	Ability to put together the separate ideas to form new whole, establish new relationships.

Many people also call the analysis, synthesis/create, and evaluation categories "problem solving."

### Action Verbs

Choose the appropriate action verb for a learning objective to ensure that the objective is observable and measurable.

**Open to Interpretation:**

- KNOW
- UNDERSTAND
- APPRECIATE
- ENJOY
- BELIEVE
- INTERNALIZE

**Concise:**

- LIST
- IDENTIFY
- SORT
- CONTRAST
- BUILD
- RECITE

### ACTION VERBS APPROPRIATE FOR EACH LEVEL OF BLOOM'S/ANDERSON & KRATHWOHL'S TAXONOMY (Cognitive Domain)

Remember	Understand	Apply	Analyze	Evaluate	Create
Define	Choose	Apply	Analyze	Appraise	Arrange
Identify	Cite examples of	Demonstrate	Appraise	Assess	Assemble
List	Demonstrate use of	Dramatize	Calculate	Choose	Collect
Name	Describe	Employ	Categorize	Compare	Compose
Recall	Determine	Generalize	Compare	Critique	Construct
Recognize	Differentiate	Illustrate	Conclude	Estimate	Create
Record	Determine between	Interpret	Contrast	Evaluate	Design
Relate	Operationalize	Operate	Correlate	Judge	Develop
Repeat	Discuss	Operationalize	Criticize	Measure	Formulate
Underline	Explain	Practice	Debate	Rate	Manage
	Express	Schedule	Detect	Revise	Modify
	Give in own words	Shop	Determine	Select	Organize
	Identify	Use	Develop	Select	Plan
	Interpret	Utilize	Diagram	Validate	Prepare
	Locate	Initiate	Value	Test	Produce
	Pick		Distinguish		Propose
	Report		Draw conclusions		Predict
	Restate		Estimate		Reconstruct
	Review		Evaluate		Set-up
	Recognize		Examine		Set-up
	Select		Experiment		Synthesize
	Translate		Identify		Systematize
	Respond		Tell		Devise
	Practice		Inspect		
	Simulates		Invent		
			Predict		
			Question		
			Retain		
			Solve		
			Test		
			Diagnose		

### Effective Learning Objectives

1. **Is it specific?**
  - Can the learner understand the intent of your instruction without misinterpreting it?
2. **Is it doable?**
  - Can your learning objectives be accomplished within the scope of the course of lesson?
3. **Is it observable and measurable?**
  - Can you determine how well the learner has accomplished the behavior or action?

### ABCD Method

- When writing effective learning objectives, answer the following questions:
  - Who is the **AUDIENCE**?
  - What specific, observable **BEHAVIOR** or action will be demonstrated?
  - What are the **CONDITIONS** you will impose when learners are demonstrating their mastery of the objective?
  - What **DEGREE** or criterion will the performance be evaluated (e.g., speed, accuracy, quality)?

**ABCD Worksheet**

Develop learning objectives using a standardized format to ensure completeness and consistency.

<b>AUDIENCE</b>	Who will be doing the behavior?
<b>BEHAVIOR</b>	What will the learner be able to do? (Make sure that it is something that can be seen or heard.)
<b>CONDITIONS</b>	State the conditions you will impose when learners are demonstrating their mastery of the objective: - What will the learner be allowed to use? - What won't the learner be allowed to use? - Under what conditions must the mastery of skill occur?
<b>DEGREE</b>	Tell the learners HOW WELL the behavior must be performed. Focus on answering the question, "What is good enough?"

**Instructional Strategies**

**Lecturing**

**Peer Tutoring**

**Students building teaching resources**

**Discussions**

1. brainstorming – going for quantity. No criticism or eval during. Leader solicits.
2. Tutorial – student leaders. Need some training on giving feedback and facilitating.
3. task group – accomplish a task. Everyone has a role.
4. role play and simulation – act out a real life situation.
  1. Briefing – explaining the topic and establishing the situation in understandable terms.
  2. Conducting the drama. Behaving as an actor.
  3. Debriefing. Analyzing how the roles were played, and identifying what was learned.
5. inquiry group
  1. led by teacher. To stimulate scientific thinking. Help students become skillful question askers.

**Start with:**

- A common experience
  - A problem or case
  - A video (scenario, incident, expert)
  - A controversy, or a dilemma.
  - An ethical or legal issue
- 
- Fishbowl (inner circle)
  - Twitter in person (one moderator)

**Roles**

- Facilitator
- Timer/moderator/policeman
- Intermittent summarizer
- Devil's advocate
- Fact checker
- Scorer—real time up and down
- Reporter

**Role Play**

- One-act play
- Debate
- Trial by jury

Tales of the Weird (grand rounds)

**End of every class—evaluation**

The two-minute evaluation

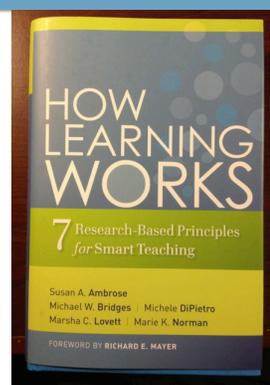
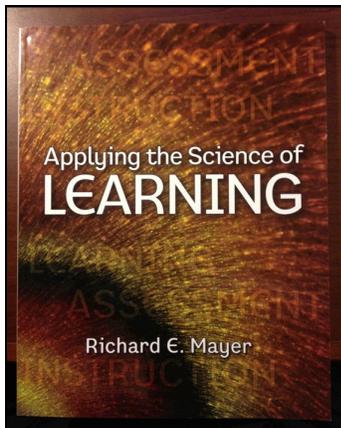
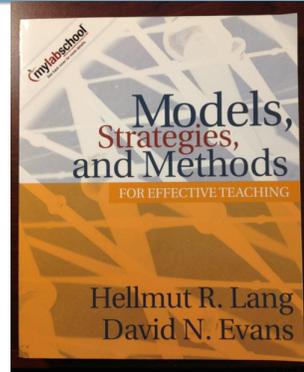
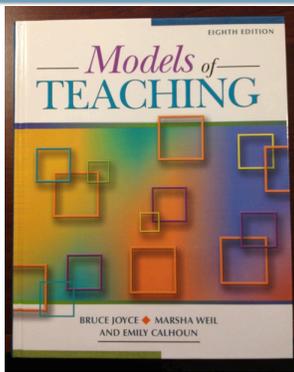
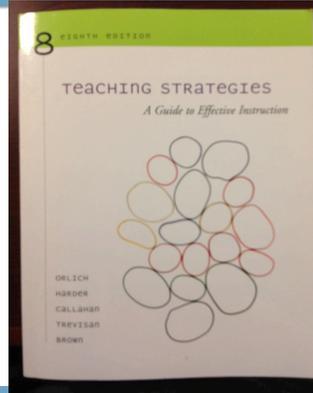
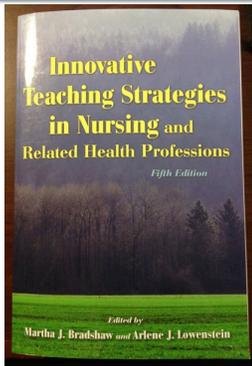
1. What do I need to know right now to help you?
2. How can I improve our course?

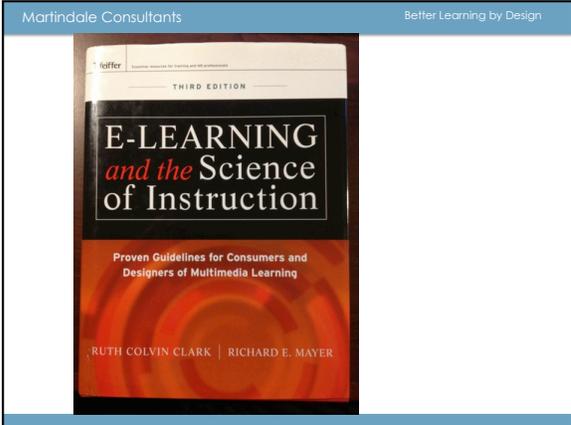
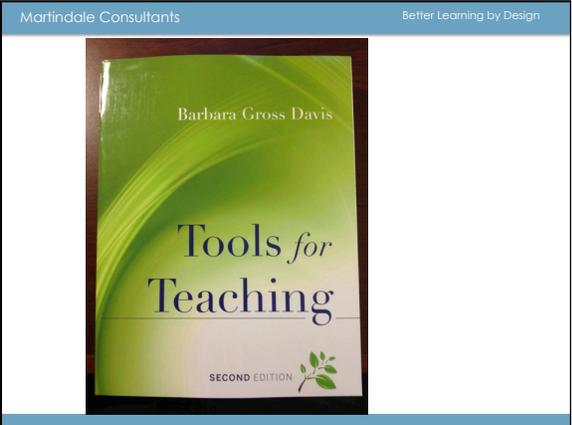
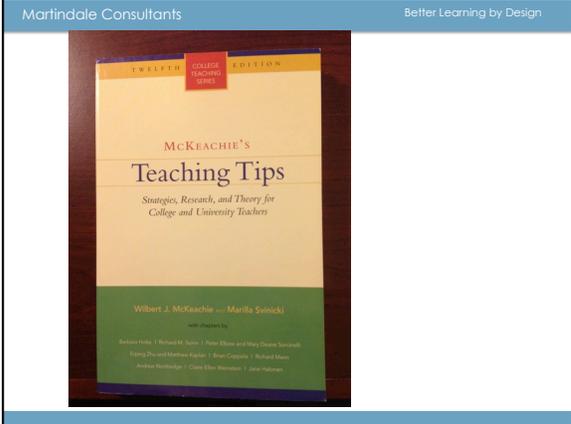
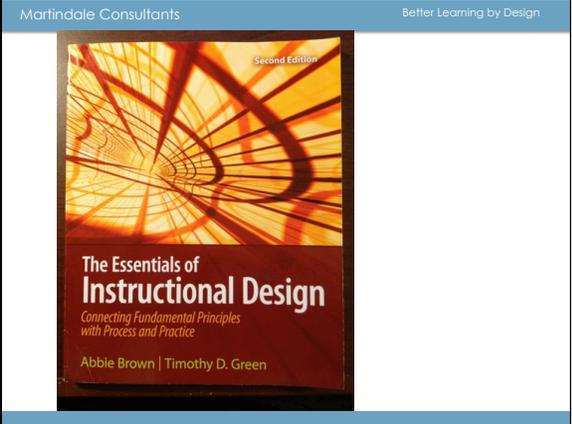
**More tools**

- blogs
- wikis
- Twitter, microblogging
- social networks
- audio and video podcasts
- screencasts
- learning management systems

**Evaluation**

- **Level 1 – Reaction**
  - Did participants like the course?
- **Level 2 – Learning**
  - Did participants learn?
- **Level 3 - Transfer**
  - Did participants use and retain what was learned when they returned to the workplace?
- **Level 4 – Impact**
  - Did the training achieve its intended impact?





Martindale Consultants Better Learning by Design

[facultyfocus.com/topic/articles/effective-teaching-strategies/](http://facultyfocus.com/topic/articles/effective-teaching-strategies/)

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Effective Teaching Strategies 103

**EFFECTIVE TEACHING STRATEGIES**

As any experienced teacher knows, "one size fits all" does not apply to instructional programs. Faculty Focus is a resource for developing effective teaching strategies, instruction and curricula.

**October 20 - Using the Reader's Guide to Increase Reading Comprehension and Minimize the Assessment**  
By Sheryl L. Grier, Ph.D. & Elinor Teaching Strategies

For many college students, getting students to read their textbooks is a continuous struggle. Not only are students overwhelmed by the length of the books, but they also struggle to read them. One way to help students is to provide them with a guide to the book. As such, this guide may help students understand the book's content and structure. This guide can be used in a variety of ways, including as a study guide or as a resource for students to use when preparing for class.

**October 19 - Helping Students Find Their Voice: Four Elements of the Classroom**  
By Susan H. Moore, Ed.D. & Elinor Teaching Strategies

Do you feel that students often struggle to put together effective and presentable? To help students, this article offers four key strategies that can be used to help students. The four strategies are: (1) use a variety of assessment methods, (2) use a variety of assessment methods, (3) use a variety of assessment methods, and (4) use a variety of assessment methods.

**September 23 - Student Engagement Tip: Give Each Lesson Its Own Theme Song**  
By Michael H. Moore, Ed.D. & Elinor Teaching Strategies

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**TOPICS:**

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- Career Development
- Curriculum Development
- Instructional Design
- Instructional Technology
- Learning Management
- Online Learning
- Student Engagement
- Student Success
- Teaching Strategies
- Writing Center
- Writing Instruction
- Writing Process
- Writing Support
- Writing Teaching