QuickTool

Teaching For Success

Lesson Planning Directions and Forms

First, Planning a Class Outcomes or Objectives Using Bloom's Taxonomy

Bloom's taxonomy of cognitive skills makes lesson planning a lot easier. In this QuickTool, You'll create a set of learning objectives for teaching a module of your choice. Now, admittedly, the human brain does not precisely support a breakdown of thinking skills into these six levels, but this system will help you plan lessons that contain more complex learning. Putting effort into this planning task means your students will achieve higher levels of thinking skills in your content area.

The Six Levels of Thinking Skills in Bloom's Taxonomy

Knowledge—given an instrument panel comprising several gauges and indicators, the student correctly locates and labels the fuel gauge.

Comprehension—given a fuel gauge reading three-quarters full, the student predicts whether the vehicle's engine will start and run.

Application—given the miles a vehicle is driven and the fuel gauge reading at the start and end of the trip, the student will calculate the fuel efficiency of the vehicle in miles per gallon.

Analysis—given the vehicle's repair manual, the student can identify the wiring and parts of the fuel gauge system.

Synthesis—given the voltage readings at various points of the fuel gauge system, the student identifies the defective part.

Evaluation—given the design specification for a new vehicle, the student describes the most cost-effective fuel gauge system design and the design trade-offs among accuracy, reliability, maintainability, and installation cost.

Learning Outcomes

Lesson plans, then, are created from an organized set of specific learning objectives. If you find that Bloom's taxonomy doesn't fit how you think about your subject, you may prefer to create a set of learning outcomes.

What is a learning outcome? A more modern term, "learning outcome" refers to a statement in your own words of how your students will demonstrate that they have mastered the material.

A learning objective or outcome is a performance description of what the student can do as result of learning the material to a minimum level of mastery. The main restriction to writing a good outcome statement is that it must be measurable.

The goal here is to make it easier for you create learning objectives at the higher levels of thinking skills. Without this planning sheet, and referring to Bloom's levels, you will have a tendency to create learning goals at the lowest levels, such as knowledge and comprehension, thus depriving your students of development at the higher thinking levels of learning.

Teaching For Success Concepts

This next section refers to the using the chart on the next page. The chart you'll find on the next page illustrates how to use Bloom's taxonomy of thinking skills to create learning objectives for a typical concept-centered class—and what better class to use as an example than a class covering

First, browse through Planning Form 1 found on page 3. The examples for each level are in red. Note how simple and concise learning objectives can be. Space is provided at the top of the form to write a general learning or, if you like, performance objective for a single class session or unit of instruction.

Next, subordinate objectives can be created using as many specific thinking skill levels as is appropriate to the content, as demonstrated in this example.

A blank copy of this form is provided for you to print according to your needs on page 5 of this QuickTool.

If this form is not to your liking, take a few minutes and create a form that better supports the way you think and work. The important point here is to stress the advantages of working with learning objectives and guard against any tendency to go overboard with too much complexity.

The bottom-line, use Bloom's taxonomy to create learning objectives that ensure students learn and practice at the highest levels of thinking skills possible in each topic.

TFS Lesson Planning Form 1: Create Thinking-Level Learning Goals (Objectives) **EXAMPLE**		
Lesson Number: **1.1**	Class Date: **1/18/11**	Lesson or Chapter Title: **Teaching for Success—Introduction**
Write the General Lesson Objective (Goal or Outcome)— Example: The student will build a fundamental understanding of teaching and learning in higher education. The principle of critical success factors will be introduced and the student will be challenged to apply the concept to the learner's role.		

Thinking level	What students do	Describe exactly what students will do to demonstrate mastery at the thinking skill level indicated.
Knowledge	Name, describe, select, define, match, state, etc.	Define "Teaching" and "Learning." Define "Success."
Comprehension	Summarize, explain, provide examples, predict, estimate.	Provide an example of teaching for success.
Application	Solve problems, construct charts, demonstrate usage.	Construct a chart of critical success factors applicable to college teaching.
Analysis	Divide, distinguish categorize, infer, separate.	Distinguish between teaching and learning.
Synthesis	Combine, revise, organize, create new perspective.	Create a new perspective by combining critical success factor of teaching with accelerated learning principles.
Evaluation	Judge, prioritize, value, evaluate, conclude, design approach	Judge the value of using critical success factors as component of good teaching.

TFS Lesson Planning Form 1: Creating Thinking-Level Learning Goals (Objectives)

Lesson Number:	Class Date:	Lesson or Chapter Title:

Write the General Lesson Objective (Goal or Outcome)— Enter below a brief description of what the student performs this item at a minimum level or mastery at the end of the lesson. State what the student does and at what level of mastery is acceptable.

Thinking levels:	What students typically do:	Describe exactly what students will do to demonstrate mastery at the thinking skill level indicated:
Knowledge	Name, describe, select, define, match, state, etc.	
Comprehension	Summarize, explain, provide examples, predict, estimate.	
Application	Solve problems, construct chart, demonstrate usage.	
Analysis	Divide, distinguish categories, infer, separate.	
Synthesis	Combine, revise, organize, create new perspectives	
Evaluation	Judge, prioritize, value, evaluate, conclude, design approaches	

Next, Planning a Class Session with the TFS PIER3 Teaching Sequence

Sometimes thinking within the box is helpful when you are learning the basics of a new concept. That said, it's time to explain each of the steps in this accelerated lesson format in detail. Again, these lesson steps are discussed in the sequence that they would be presented to students. This sequence of instruction is based on the work done by Collin Rose.

Two good questions are: Can these steps be accomplished in any order? And, can a step be deleted or skipped? Ideally you should go through each step in the lesson sequence in order. However, there are always special teaching circumstances that call for innovation and change. But unless there is a good reason for deviation, you should strive to present each of the following steps:

- **Prepare**—Begin lesson planning with the end in mind, and devote time to learning warm-ups—this will save you and your students time.
- **Input**—Present the content in visual, auditory, and hands-on learning experiences; teaching genius means knowing how to reduce the complex to a simple yet accurate expression of the same knowledge—for example, $E=mc^2$. Be sure students formulate questions they are interested in answering.
- **Explore**—Your students learn the most in the least time when they are encouraged to explore the material using *their* preferred learning styles, intelligence sets, and modes of expression.
- **Recall**—Learning retention is significantly increased when students personalize and emotionalize the material.
- **Retain**—Teach self-testing—the best students know the value of reviewing early and often and self-testing their knowledge and skill acquisitions.
- **Reflect**—Both instructor and learner must constantly gather performance observations, and then reflect on improvement action steps.

An easy way to remember the steps in this lesson model is to remember the formula for the area of a circle, $A=\Pi r^2$. Changing that common formula slightly to the mnemonic PIE-R^3 will help you remember the sequence of instructional events. This system is built on the learners' needs. It endeavors to provide in sequence the learning activities that make the most instructional sense:

- **P**repare.
- **I**nput.
- **E**xplore.
- **R**etain.
- **R**econfirm.
- **R**eflect.

Lets look now at the details of each of the **PIE-R^3** lesson-plan steps. A good rule of thumb in lesson planning is to use Albert Einstein's planning principal, "Everything should be made as simple as possible, but not simpler."

TFS® Class Meeting Activity Planning Form

Course	*Lesson Number*	*Date/Day*	*Time*	*Text Chapter/Sections*

Instructional Resources

- ❑ *Handouts*
- ❑ *Equipment*
- ❑ *Guests invited*
- ❑ *Tests/Quizzes*
- ❑ *Supplements*
- ❑ *References*

Course Management Tasks

Institutional announcements.

Homework assignments.

Others (list.)

Learning Objectives or Outcomes:

***Section I. Prepare**—5-10% of total class time (i.e. 2.5 to 5 min. of a 50-minute class meeting)*

Goals:	*Strategy—What method will you use to accomplish goal?*	*Learning Activities—What will students do?*
Gain attention.		
Learning mindset preparation.		
Connections to previous learning (brief review)..		
Attendance/paper return/quiz.		

Section II. Input New Material

Goals:	***Strategy—What method will you use to accomplish goal?***	***Learning Activities—What will students do?***
Present Topic 1.		
Present Topic 2.		
Present Topic 3.		
Section III. Explore	***Strategy—What method will you use to accomplish goal?***	***Learning Activities—What will students do?***
Explore Topic 1.		
Explore Topic 2.		
Explore Topic 3.		

Section VI. Retain	***Strategy—What method will you use to accomplish goal?***	***Learning Activities—What will students do?***
Retain Topic 1.		
Retain Topic 2.		
Retain Topic 3.		
Section V. Recall	***Strategy—What method will you use to accomplish goal?***	***Learning Activities—What will students do?***
Recall of Topic 1.		
Recall of Topic 2.		
Recall of Topic 3.		
Section VI. Reflect	***Strategy—What method will you use to accomplish goal?***	***Learning Activities—What will students do?***
Reflect on learning session (all topics).		
Section VI. The Cliff Hanger Exit	***Strategy—What will you use to inspire and motivate students to return to the next class meeting prepared to learn?***	
Teaser topic to boost attendance and interest in next session.		

Extra TFS Lesson Planning Forms on Pages 11-13.

TFS Lesson Planning Form 1: Creating Thinking-Level Learning Goals (Objectives)

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