

HOW EFFECTIVE IS YOUR LESSON PLAN?



Sarita Nazareth, Training Specialist
TCEQ Licensing Section
Permitting & Registration Support

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LESSON PLAN



- Defines learning objectives and how objectives are attained in class
- Shows orderly sequence of activities
- Revolves around a 4 step teaching process which involves
 1. Preparation
 2. Presentation
 3. Application
 4. Testing

ANALOGY



An effective lesson plan is like a GPS.

It tells you

- Where you are
- Where you are going
- How to get there



Why create a good lesson plan?



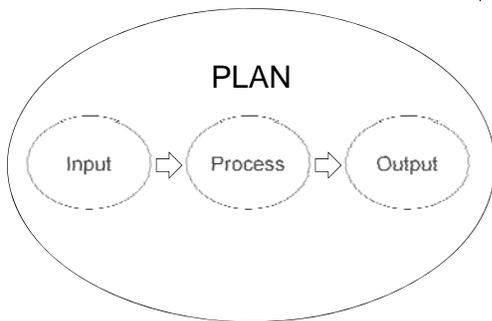
1. You – A good lesson plan is more than half your work done
2. Your audience – Make right choices and follow the course material
3. TCEQ- Compliance with the Guidance document

Problems with lesson plans



- Do not identify learning objectives
- Time specified for the course is not reflected in the lesson plan
- Do not relate to course material
- Do not specify how learning objectives will be achieved
- Do not define learning methods

THE DESIGN

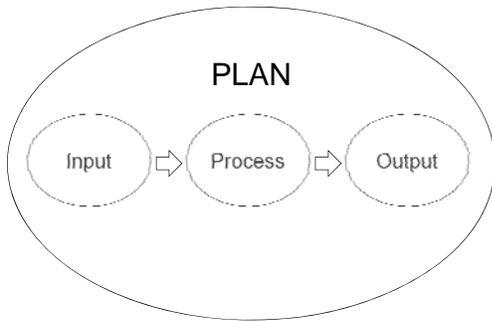


PLANNING



- Outline learning objectives
 - What is the topic of the lesson?
 - What do I want the students to learn/understand and take away at the end of the class.
 - Rank in order of importance
- Plan Instruction and Learning activities
- Strategies to check student understanding

THE DESIGN

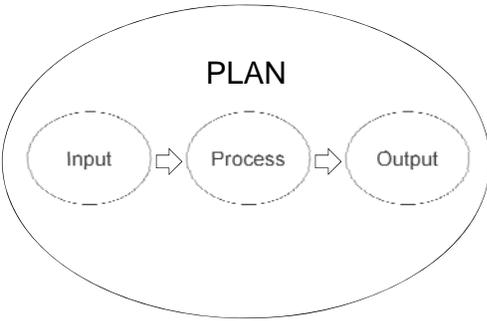


INPUT



- Information about the students
- Information about how much time it will take to implement the lesson
- Description of the materials that will be required for the lesson and the actual possession of the materials
- Instructor Preparation (it may be easier to plan by day)

THE DESIGN



THE PROCESS



- Objectives guide the course material
- Teaching/Learning methods
- Plan to check for understanding
- Create a realistic timeline

OBJECTIVES GUIDE COURSE MATERIAL



- Alignment of course material to objectives
- Topics should be in sequence
- Define chapter & relevant topics

TEACHING & LEARNING METHODS



- What will I do to explain the topic?
 - Relevant real life examples
 - Analogies or case studies
 - Best practices
 - Lessons learned
- How do I enhance learning?
 - Interactive student activity
 - Hands on activity
 - Exhibits and audiovisuals

Plan to check for Understanding

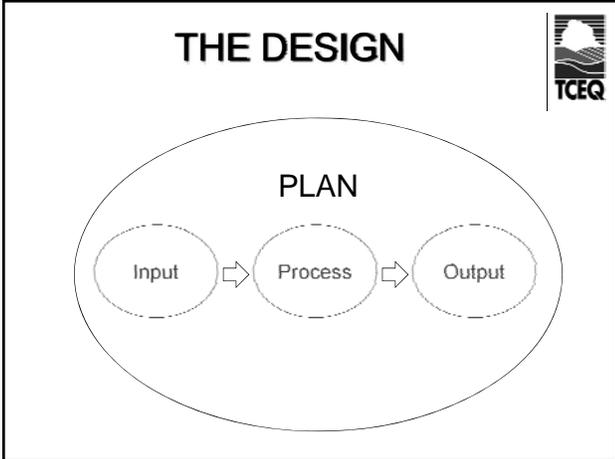


- What questions can I ask to check for student understanding?
- What activity will demonstrate student understanding?

Create a Realistic Timeline



- Next to each activity indicate start/end time and duration
- Plan a few minutes at the end of each activity to answer any remaining questions and to sum up key points.
- Add necessary breaks in between chapters (15mins/4 hrs)
- No credit for lunch time
- Total contact hours should match requested hours



THE OUTPUT

- Participants learning matches the learning objectives
- Verification through evaluation
 - Define the method
 - Quiz, test, exercise, ...
- Instructor and course evaluation (Not included as contact hours)
- Feedback forms

HOW CAN WE IMPROVE THIS LESSON PLAN?

Instructional Aids:

1. Training Manual
2. Handouts (See Included copies)
3. Pressure Loss Charts from TCEQ
4. Copies of Chapter 34, 37, 344, 30 and 290 from TCRQ
5. Passing Criteria Statements from TCRQ
6. Flip Chart
7. Dry Erase Board, Markers and Eraser

Instructor Preparation:

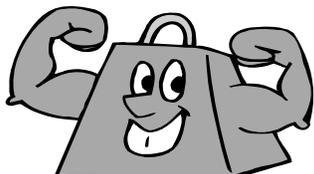
1. Set Up Room
2. Copies of Handouts
3. Registration Forms

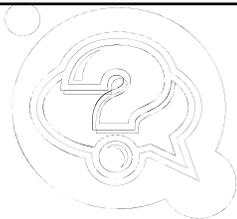
Topic, Discussion and Class Activities	Time on Task		
Day 1 8:00 to 5:00 (1 Hour for Lunch and 2, 15 Minute Breaks)	45 Minutes	Welcome and Introduction	TCEQ Laws and Regulations
		Registration	Local Ordinances
Topic, Discussion and Class Activities	45 Minutes	Course Summary and Objectives	Glossary of Terms
		Basic Principles of Hydraulics	1 Hour
Topic, Discussion and Class Activities	1 Hour	Pressure Loss Calculations	Static and Dynamic Pressure (Including Effects of Slope) (Sample Problems)
		Pressure Loss Charts	1 Hour
Topic, Discussion and Class Activities	1 Hour	Flow Sizing and Velocity	Hydraulics Calculations (Sample Problems)
		Hydraulics Calculations	2 Hours
Topic, Discussion and Class Activities	15 Minutes	Water Hammer (Cause and Effect)	Including Flow Losses, Elevation and Interpreting the Information (Sample Problems)
		Water Hammer (Cause and Effect)	16 Minutes
Topic, Discussion and Class Activities	45 Minutes	Green Industry and Irrigation	Homework: 2 Hydraulics Problems
		History of Licensing in Texas	

AND FINALLY...



- Never underestimate the power of an effective lesson





Presenter: Sarita Nazareth
E-mail: sarita.nazareth@tceq.texas.gov

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