



TRAINING 101: DEVELOPMENT

**Presented to: NAPTA Instructor
Skills Conference IX**

PRESENTER BIO

Tammy D. Netherland

Director of Business Support

Systran

- Over 19 years in adult learning, training development, and project management
- Designed, developed, facilitated, and evaluated training material for multiple chemical and refining companies

PRESENTER BIO

David F. Hirsch

Systran CEO

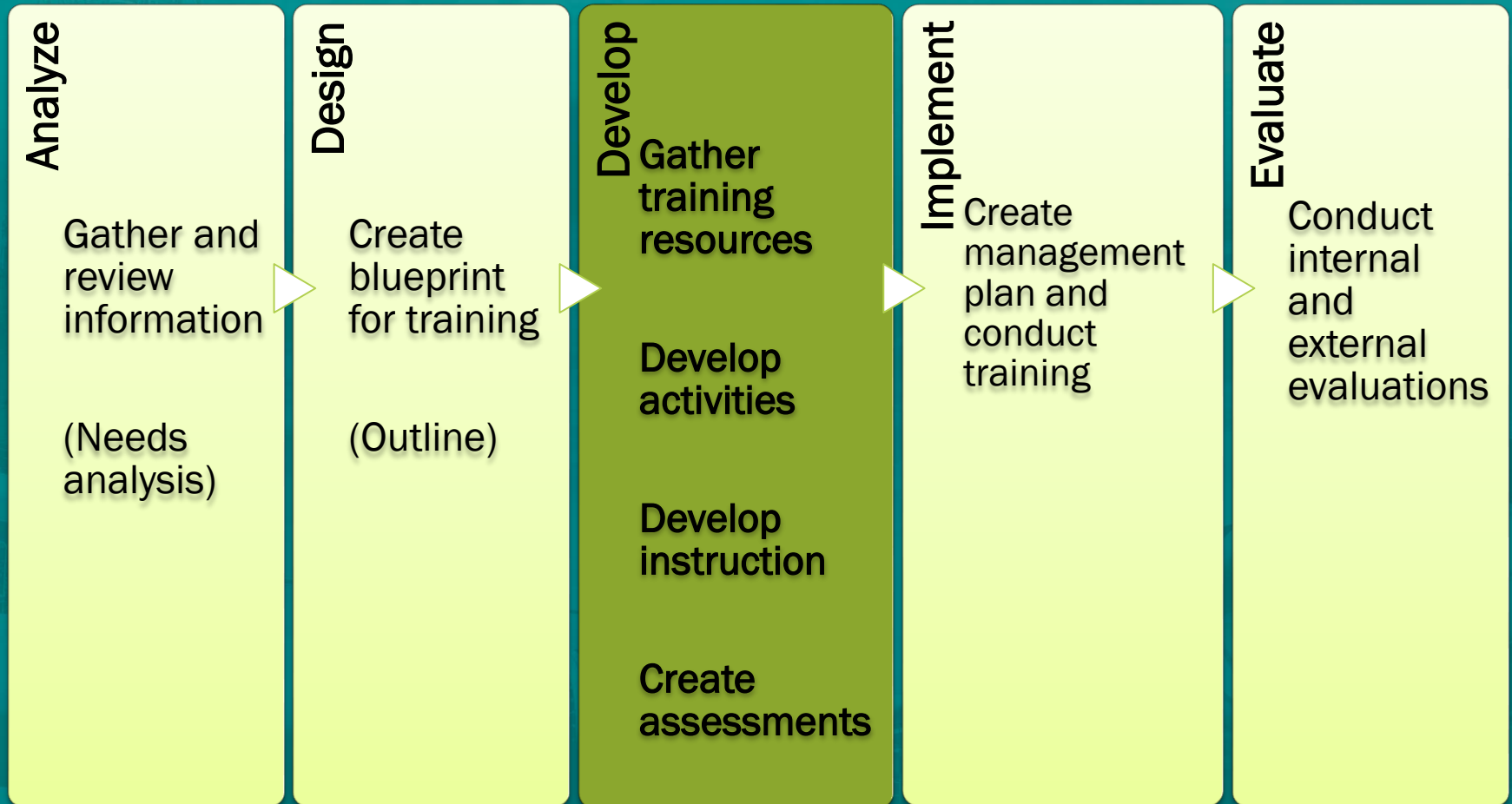
- Over 25 years in adult learning, training development, and project management
- Developed training material, operating manuals, and procedures for multiple chemical and refining processes

LEARNING OBJECTIVES

After this session, the participant will be able to:

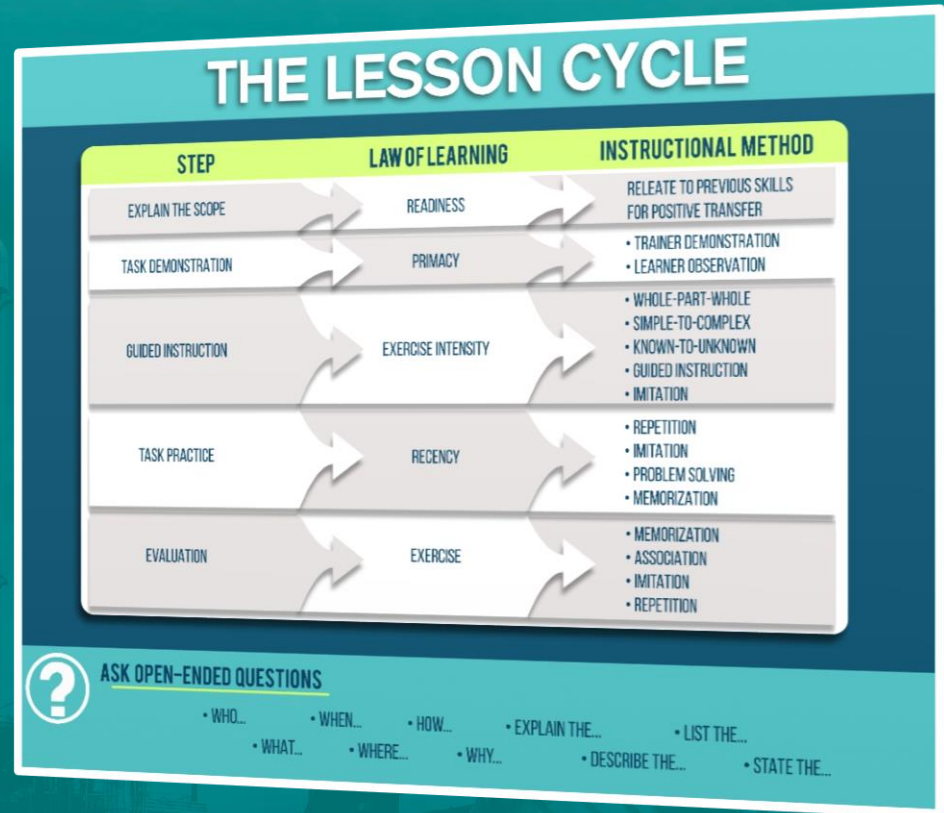
- List the steps in the development process
- List the components of a lesson
- Identify appropriate media, activity, and assessment techniques
- Demonstrate selection of learning activities to best achieve lesson objectives

INTRODUCTION



LESSON STRUCTURE

- Explain the Scope
 - Objectives
 - Introduction
- Content
 - Task Demonstration
 - Guided Instruction
 - Task Practice
- Summary
- Assessment



LESSON INTRODUCTION

Purpose

- Stimulates recall of previous knowledge and experience
- Personalizes learning
 - What YOU will learn
 - What YOU will get out of the training
- Includes WIIFM

Electrical Technician
Area Classification Module JG09

Introduction

As an electrical technician, your primary area of responsibility is to maintain electrically powered equipment. You will work in areas of the plant where volatile liquids and gases are considered flammable.

Under normal operating conditions, electrical equipment is a potential ignition source. Equipment such as motor starters, circuit breakers, switches and relays can create arcs when they open or close. Electrical equipment also has the potential of being an ignition source under abnormal operating conditions. Arcs can occur because of insulation breakdown, wire breaks or due to the opening of a fuse.

As an electrical technician, you must use equipment and work processes that eliminate the possibility of creating ignition sources. This module describes how area and zone classification helps to prevent hazardous conditions.

LESSON CONTENT

Chaining or Association

- Linkage to things you already know about
- Relevance to you improves retention
- Known-to-unknown

Multi-sensory

- What you see, hear, and do increases retention
- 70% of learning occurs in OJT/hands-on

Chunking

- You store information in your brain in small segments
- Information organization improves retention
- Simple-to-complex
- Whole-part-whole

LESSON MEDIA SELECTION

Graphic Selection

- Related to training materials
- Appropriate for content
- Focus information

Labeling

- Content and labeling must connect

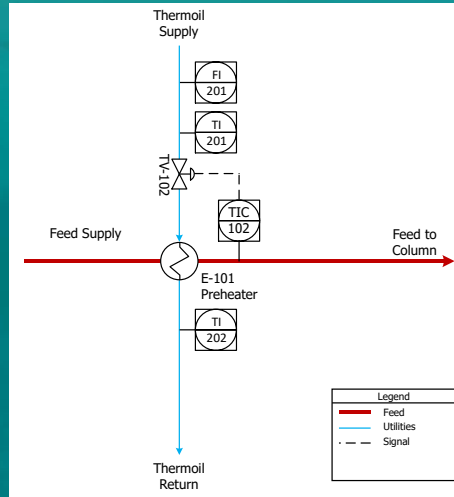
Layout

- Content first – graphic below it

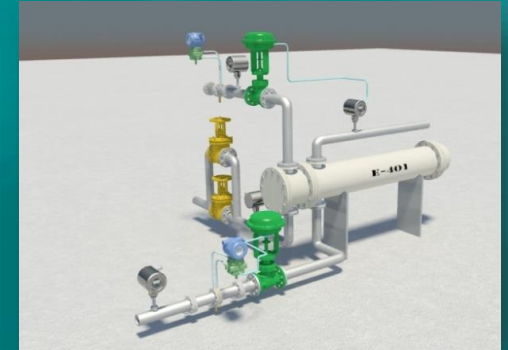
LESSON MEDIA SELECTION



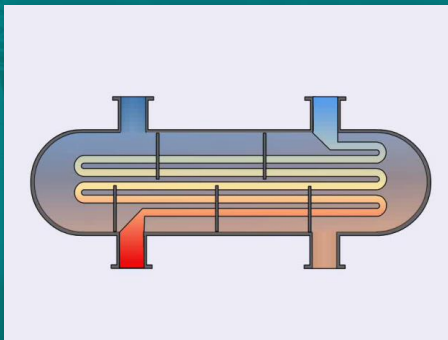
Photographs



Line drawings/diagrams



Illustrations



2D

Animations



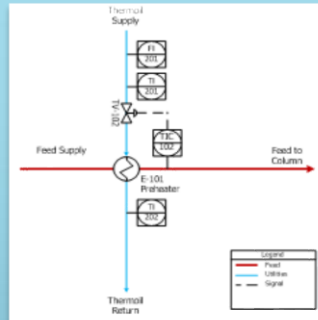
3D

LESSON MEDIA SELECTION



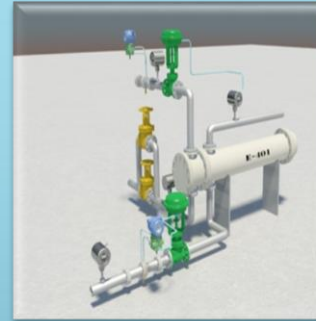
Facts/Concepts

- Location, appearance, purpose
- Job aids, mnemonics
- Descriptions



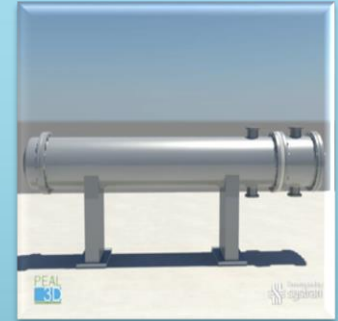
Processes

- Descriptive explanations



Procedures

- List of ordered steps
- Explanations of how to perform steps



Principles

- Cause and effect statements
- Rules or guidelines
- Examples and non-examples, analogies



EXERCISE

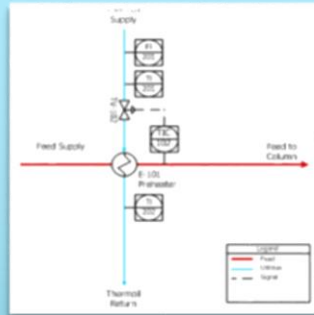
Media Selection

LESSON ACTIVITY SELECTION



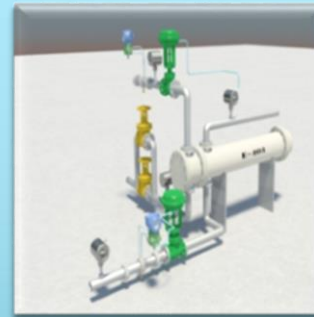
Facts/Concepts

- Job aids, mnemonics
- Design exercises that apply to job tasks
- Locate
- Identify
- Label
- Match



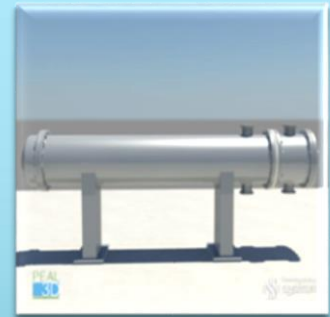
Processes

- Descriptive explanations
- Case studies
- Design exercises to solve problems/make predictions



Procedures

- List of ordered steps
- Practice steps
- Talk-through
- Walk-through
- Simulation



Principles

- Cause and effect
- Guidelines
- Examples and non-examples, analogies
- Design exercises using problems, scenarios, role-play
- Simulation



EXERCISE

Activity Selection

LESSON ASSESSMENT SELECTION

Basic Rules

- Consider the goal of assessment
- Relate to learning objectives
- Ensure answers covered in content
- Vary question types

LESSON ASSESSMENT SELECTION

Facts/ Concepts

- Multiple choice
- Labeling
- Matching

Processes

- Labeling
- Sequencing
- Short answer

Procedures

- Listing
- Sequencing
- Talk-through
- Walk-through
- Simulation
- Demonstrate following steps

Principles

- What-if scenarios
- Demonstrate problem solving
- Short answer
- Simulations



EXERCISE

Assessment Selection

LESSON SUMMARY

Purpose

- Reinforces concepts taught in the lesson
- Allows opportunities to review information

Examples

- When would you use a photograph?
- When would you use a problem-solving exercise?
- When would a problem-solving question be appropriate?

SUMMARY

In this lesson, you learned about the development phase of the ADDIE model including:

- Steps in the development process
- Components of a lesson
- Media, activity, and assessment selection

QUESTIONS

For more information, contact:

Tammy D. Netherland

tnetherland@systraninc.com

www.systraninc.com

QUESTIONS

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