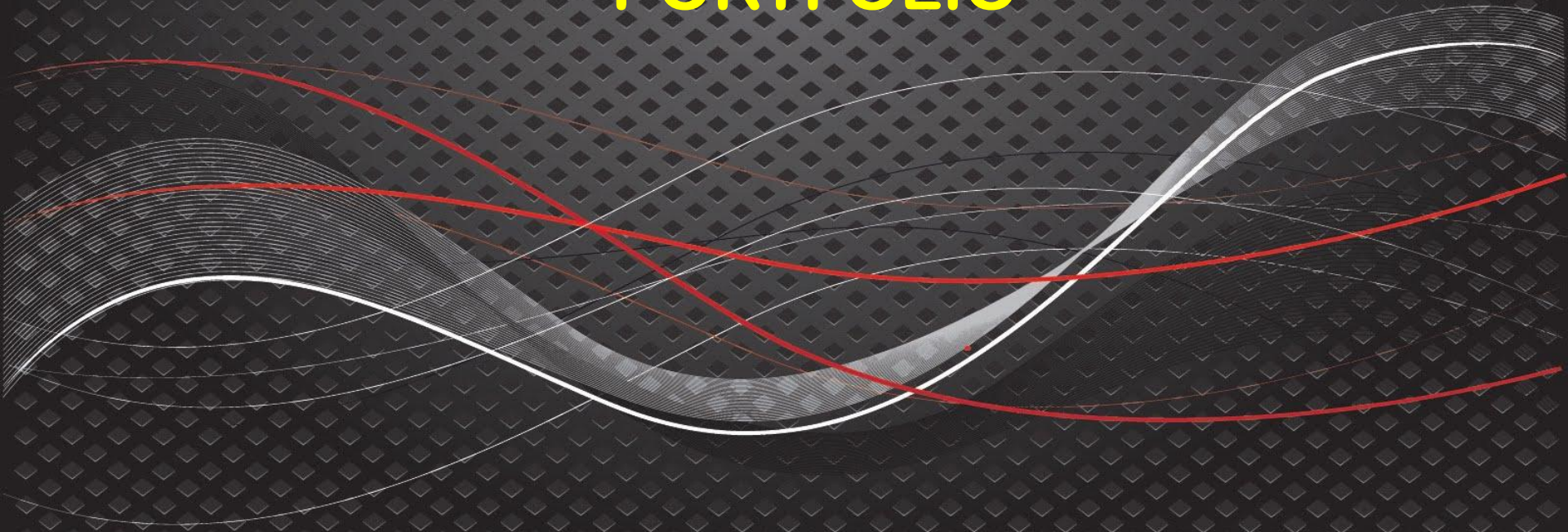


**MOHAMAD ALI BIN BABA**

**INSTRUCTIONAL DESIGN  
PORTFOLIO**





# My Philosophy

## David Merrill First Principle of Instruction

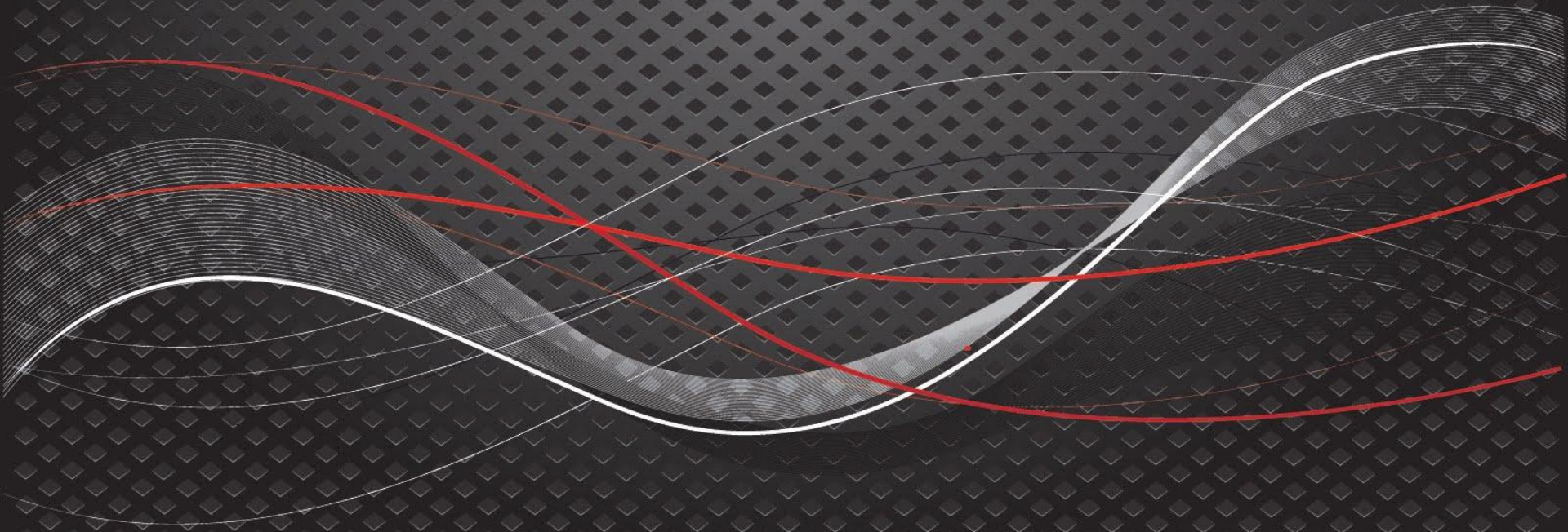
- Learning Must be Effective, Engaging, and Efficient

## Data Driven Instruction


- Use of learning data to inform pedagogy
  - Use of learning analytics and educational data mining
- 
- The bottom of the slide features a decorative graphic consisting of several overlapping, wavy lines. The lines are primarily white and light gray, with a prominent red line that curves across the lower portion of the slide. The background of the entire slide is a dark gray with a subtle, repeating diamond-shaped pattern.

# What I offer ...

- Continuous improvement in curriculum & pedagogy
- Student success and retention
- Program Accreditation



# Important Instructional Approaches

1. Merrill First Principle of Instruction
  2. ARCS – First Principle of Motivation
    - Attention, Relevance, Confidence, Satisfaction
  3. Community of Inquiry
  4. Situated learning
  5. Gagne Nine Events of Instruction
- 

# My Instructional Design Philosophy

Continuous Improvement through Analysis,  
Design, Development, Implementation, and  
Evaluation

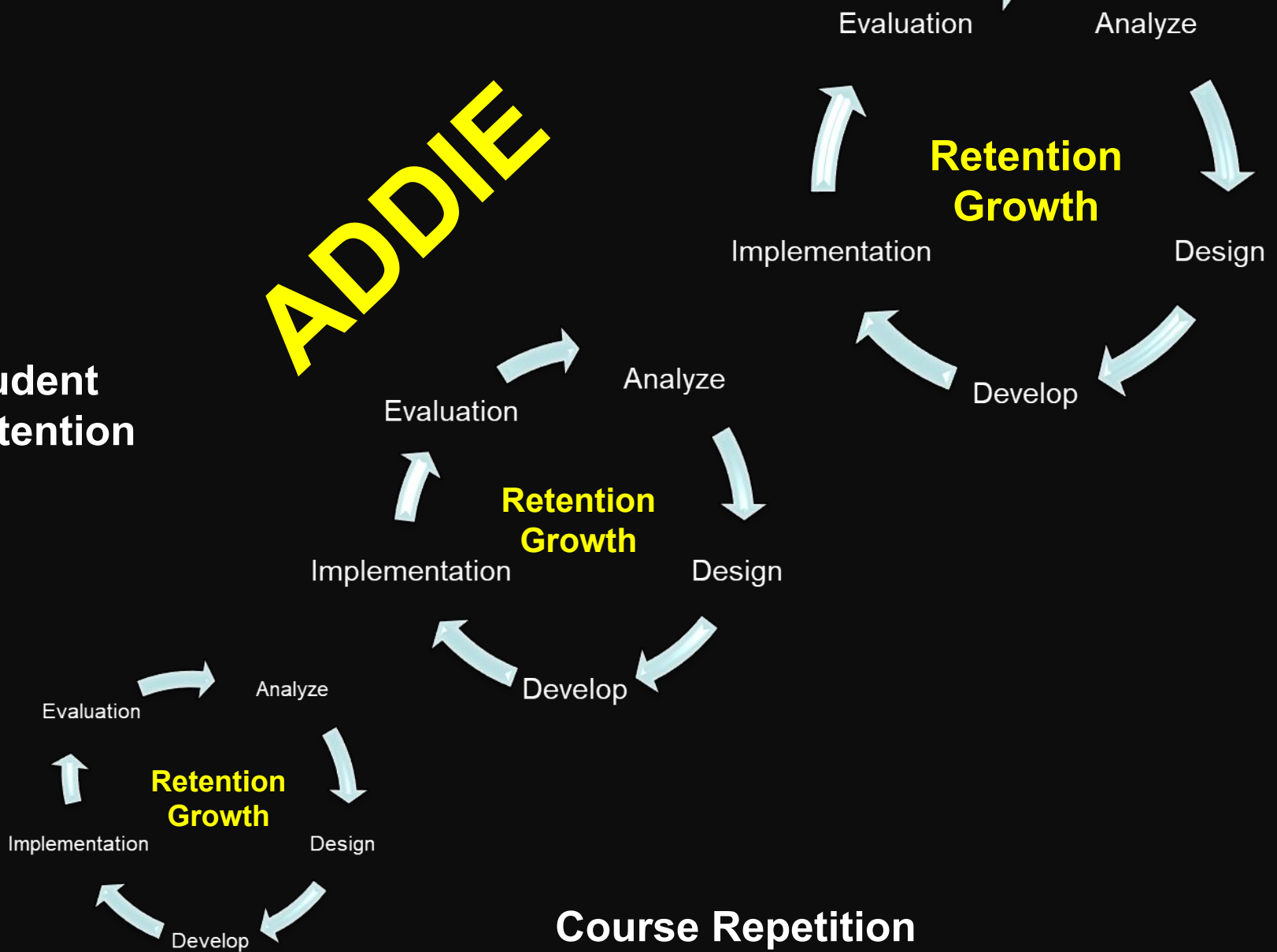
**ADDIE**



# ADDIE

Student Retention

Course Repetition



I use my skills to ...

- Create measurable learning outcomes
- Analyze learners
- Improve pedagogy
- Improve the design and delivery of online and blended learning courses
- Assess learning outcomes



20 years of professional experience in the field of ....

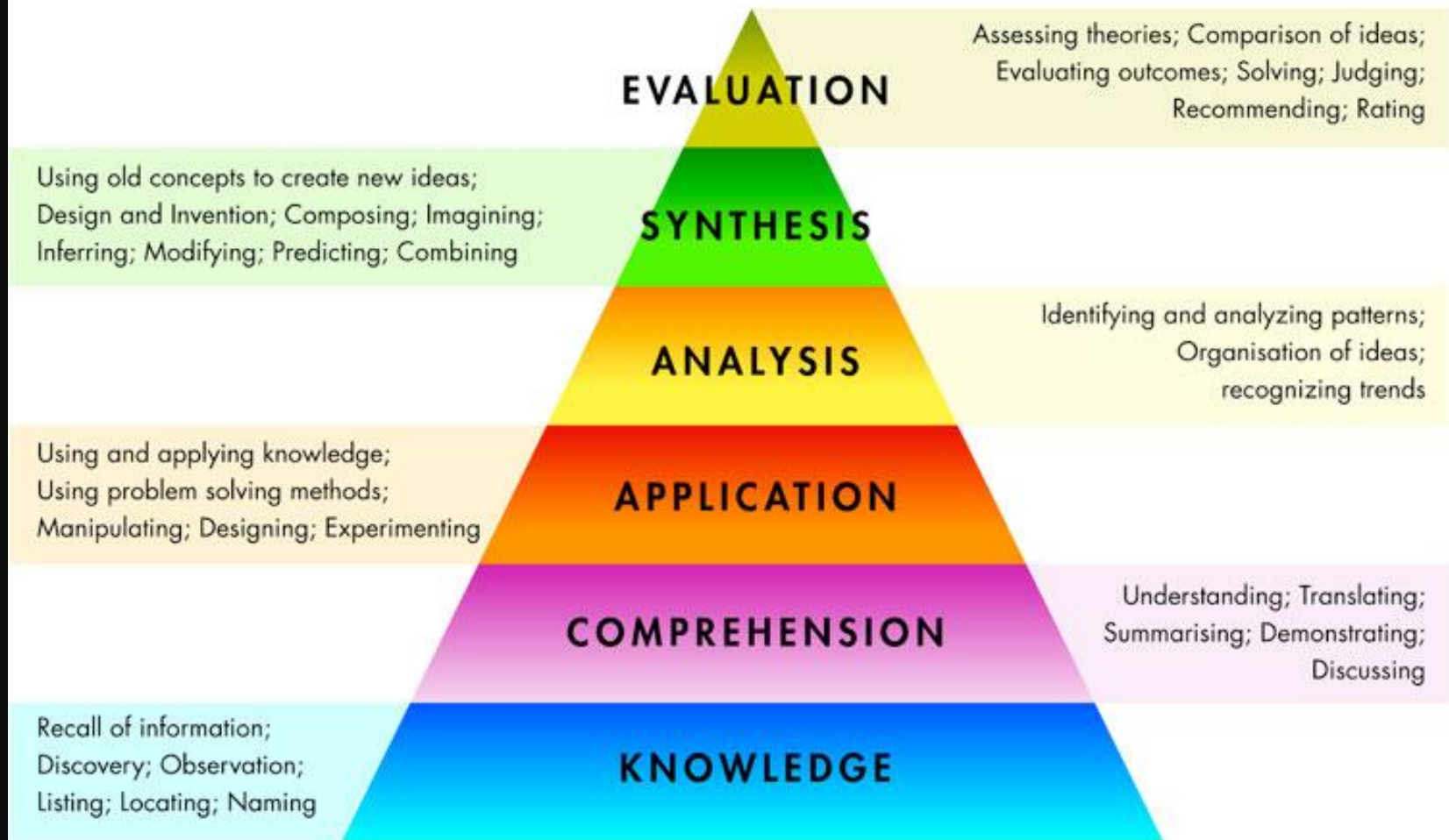
- instructional design
- curriculum development
- online and blended programs
- learning analytics
- assessment
- project management

# My Works

Learning Outcome  
Assessment  
&  
Accreditation Report

# Improve Existing Learning Outcomes

## B L O O M S   T A X O N O M Y



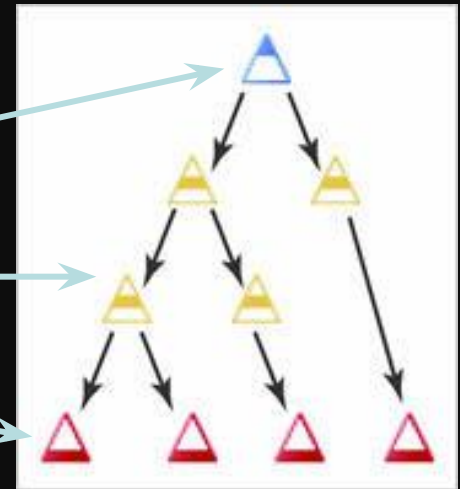
# Learning Competencies Structure in LMS

A competency structure is a hierarchy composed of three basic elements:

“Program” Competencies

“Course” Learning Objectives

“Assessment” Activities




# Mapping of Learning Outcome to Learning Activities in LMS

## Learning Objective Structure - Define key terms

Structure Summary

Edit Structure

 Define key terms

Define key terms in management, quality, production, and automation.

“Program”  
Competency

“Course” Learning  
Objective

### Children

[Expand All] [Collapse All]

 4.1 Recall that robustness is a characteristic of a well-designed manufacturing process by using experimentation.

 Chapter 2 - 4 Quiz

 Exam #1

 Final Exam



“Assessment”  
Activities

# A sample of Assessment report

FINAL 2022 ASSESSMENT RESULTS (1 001 2021)

Competency	Assessment method (Rubric, exam, etc.)	Item # (Quiz 1, question 1, e.g.)	Maximum possible score for item	% of Maximum Score	Percentage that		
					Does not meet expectations (less than 70%)	Meets expectations (70-89%)	Exceeds expectations (90% or higher)
7a	Final Exam	Chapter 10-12	100	76.15(1), 75.38(1), 74.62(1), 69.23(1), 67.69(1), 65.38(1), 40.77(1), 33.85(1)	67.5	37.5	0
5a	Ethics in Leadership Profile Paper	Summary of Code of Ethics	15	15(8)	0	0	100
5b	Ethics in Leadership Profile Paper	Question 1 to 10 and Application of question 1 to 6 to yourself as a leader	100	100(3), 97.5(1), 95.83(2), 95(1), 89.17(1)	0	12.5	87.5
4a, 6b	Leadership Profile Paper	1. Self-Assessment 2. Life Goals 3. Distinguished Alumni Bio 4. Action Plan	100	100 (6), 96(1), 75.2(1)	0	12.5	87.5

## Competency Description:

4a. Effectively communicate information in a technical report.

5a. Demonstrate knowledge of professional code of ethics.

5b. Evaluate the ethical dimensions of a problem in the discipline considering global, economic, environmental, and societal contexts.

6b. Develop a career plan.

7a. Understand the contribution of team members in achieving goals.


## Continuous Improvement Plan:

- Fall 2022 - Introduced Lesson worksheets to improve learner's comprehension of the subject.





# Individual student report by objective



## John Doe

Learning Objectives Passed  
**47 %** (56/119)







Completed: 56/119

Not Started ( 17 ) In Progress ( 46 ) Passed ( 56 ) Needs Remediation ( 0 )

### 4.1 Recall that robustness is a characteristic of a well-designed manufacturing process by using experimentation.

67 % ( 2 / 3 ) Complete 2 / 3 Achieved

3 Activities, 0 Objectives Last Updated: Nov 10, 2014 12:04 PM

 <b>Chapter 2 - 4 Quiz</b>	Based On: Quiz Score Threshold: 60 %	
 <b>Exam #1</b>	Based On: Quiz Score Threshold: 60 %	B 
 <b>Final Exam</b>	Based On: Quiz Score Threshold: 60 %	

## - Fundamentals of

### Mfg Processes

Fall 2014

Summary

Grades

**Objectives**

Content

Discussions

Dropbox

Quizzes

Checklist

Surveys

Login History

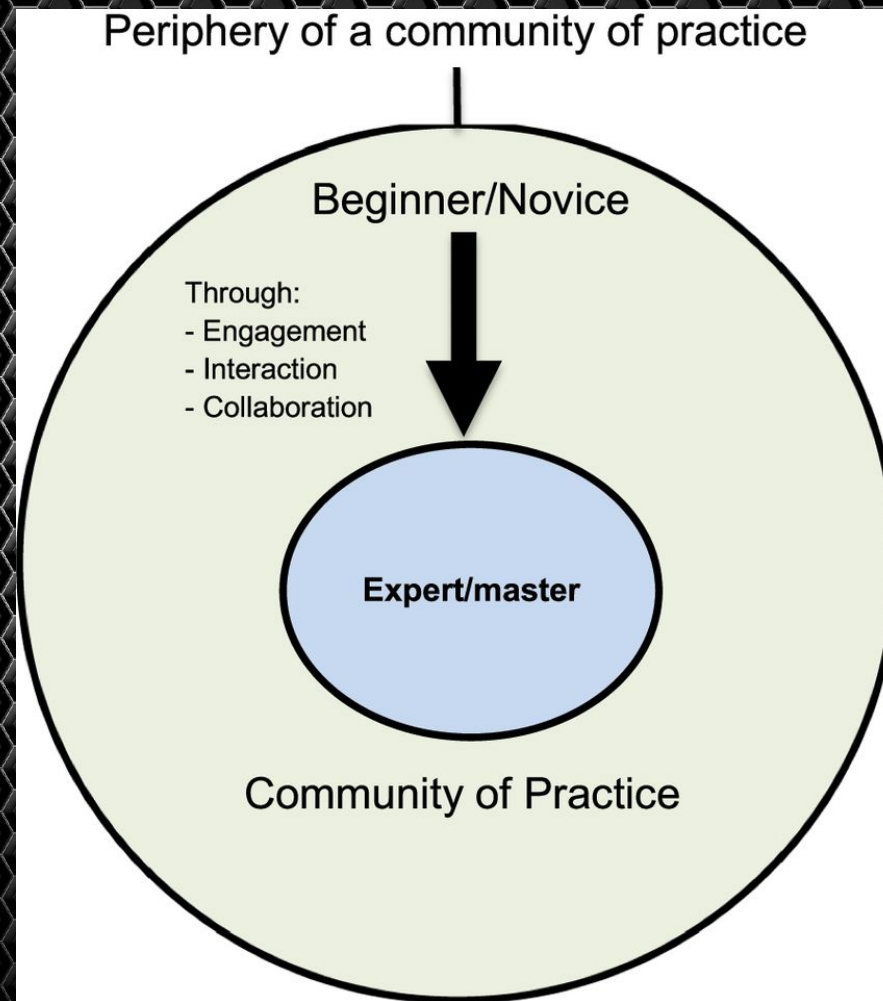
# Pedagogical Improvement based on Learner Analysis

The utilization of discussion board to implement situated learning among adult learners based on the concept of legitimate peripheral participation where beginners learn from the experts

# Adult Learning and Cognitive Apprenticeship

I implement cognitive apprenticeship through asynchronous discussion as a way to construct a community of practice (CoP) in learning. CoP allows new learners to involve in legitimate peripheral participation with experienced learners in a social context and makes the learning more situated to real world situations. The concept of CoP also encourages learning that extends beyond the boundary of synchronous time and space

# Adult Learning: How Beginners can learn from the Experts through Legitimate peripheral Participation



Example of a  
discussion prompt that encourages  
legitimate peripheral participation among  
adult learners



Table 4-2 on page 92 in your text shows, "Constraint Categories & Types". Choose one from each category and describe a task from your past or present employment to which it would apply. Explain your logic. Are there any of your peers, submissions you would challenge?

*In my last employer I was a fire sprinkler designer. The Constraints that were used at this position was inflexible. I would have a beginning and end date for each project. No matter what at that time I would start and finish the whole project to meet our clients needs. I would also call these project deadlines. Right now since i am a freelance designer and teacher I have a lot more flexibility in what I can do so I can use more of a ASAP and ALAP method.*

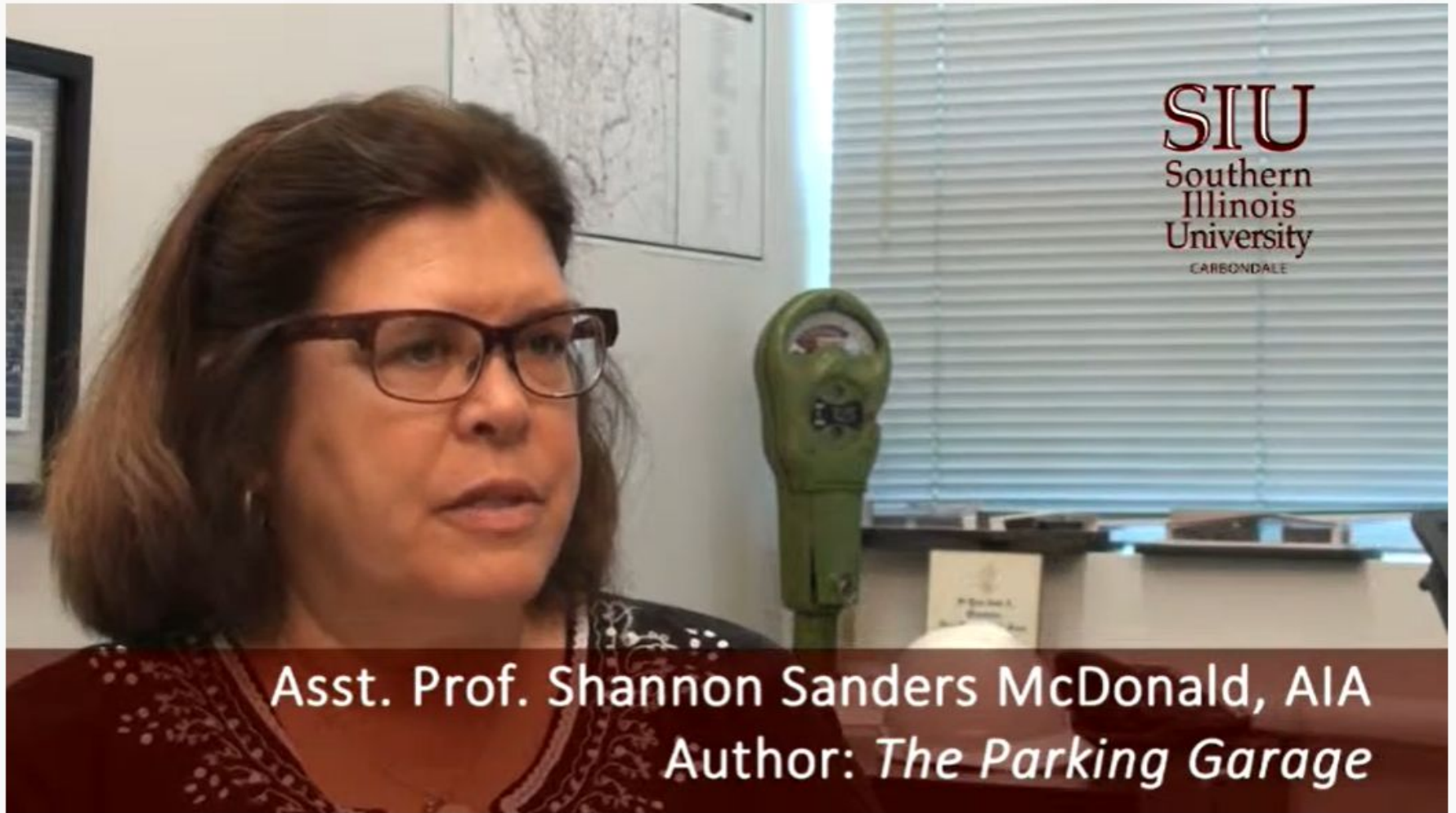
*I am curious, were the sprinklers personalized? did you have to meet the customer before deciding which type of sprinkler to use/design? If not, why would your project start have a inflexible start date? an imposition from your employer maybe?*

# Video Production

Promotional Video for an online  
course

-

<https://www.youtube.com/watch?v=orID-oEHKMY>



Asst. Prof. Shannon Sanders McDonald, AIA  
Author: *The Parking Garage*



# Presentations and Workshops

- Learning outcomes assessment
- Online Rubric Development
- Competencies mapping and evaluation
- Future presentation – Big Data in Education: Online Learning Behavior and Predictive Analytics

# Current Projects

- Patterns of LMS utilization according to learner-learner, learner-content, learner-instructor interaction
- How does LMS utilization correspond to course types? – application vs knowledge
- Relationship of LMS utilization to course satisfaction
- Relationship of LMS interaction to learning performance