

# Modernizing Training for the Next Generation of Nuclear Workers



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# **Modernizing Energy Workforce Training:** An Introduction to Active, Learner-Centric Learning Environments

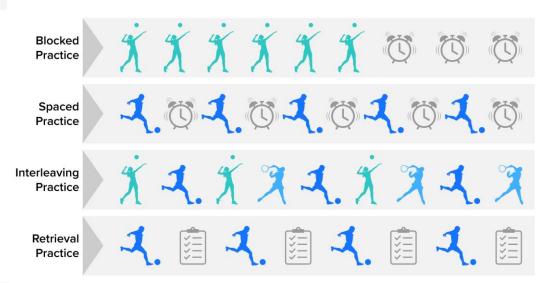
LEARNER-CENTRIC	ELEMENTS	TEACHER-CENTRIC
Constructed by Learner	KNOWLEDGE	Transmitted to Learner
Active	LEARNER ENGAGEMEN	T Passive
Facilitator/Partner	ROLE OF INSTRUCTOR	Leader/Authority
Developing Deeper Understanding	LEARNING GOAL	Learning for Correct Answers
For Ongoing Feedback	ROLE OF ASSESSMENT	Mainly for Grading
Multidimensional Testing	ASSESSMENT METHOD	One-dimensional Testing
Collaborative, Supportive	CULTURE	Competitive, Individualistic

### Encoding Retaining Retrieval **PASSIVE ACTIVE** CONSTRUCTIVE **INTERACTIVE** Learners engage in Learners generate Learners are oriented Learners must toward and receiving some form of physical or produce dialogue or interact information from manipulation with products beyond with other learners in instructional materials instructional material a constructive mode

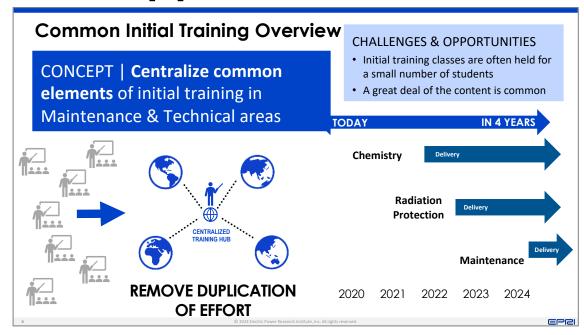
**ACTIVE LEARNING ENVIRONMENT** 

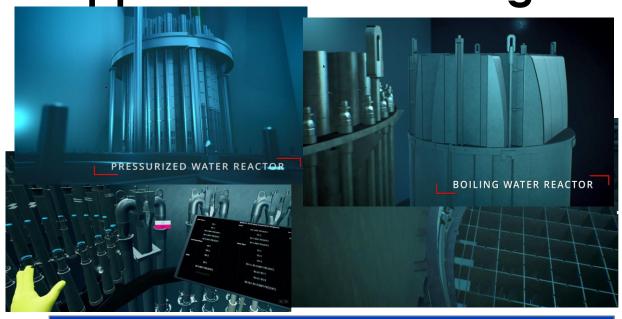
## **Recommendations:**

- Science of learning strategies can be applied to nuclear training to enable active, learner-centric environments
- Technology can be leveraged to enable active learning environments
- Further research is recommended to programmatically align learning strategies, prudently apply technology, and explore new methodologies for learner assessments.

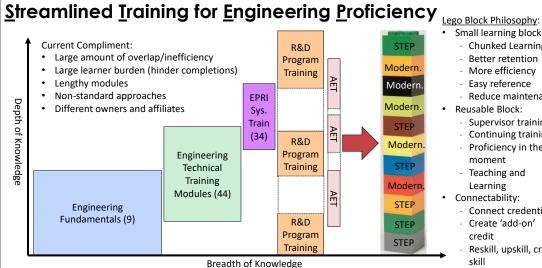


**EPRI Application of Modernized Approaches to Training** 









Focus on Proficiency, Advanced Training, and Job Mobilization

Chunked Learning

Reduce maintenance

Supervisor training

Continuing training

Connect credentials

Reskill, upskill, cross-

Create 'add-on'

Proficiency in the

moment

Learning

credit

Teaching and

Better retention

More efficiency

Easy reference

# Learning Research: Next Steps

- Ideas for Continued Research:
  - Investigation of Emerging
     Technologies and their
     Application for Technical Training and Workforce Development
  - Methodologies for Evaluating Worker Skills: Computer-Based Evaluations
  - Examination of Energy Sector
     Knowledge, Skills, and Behaviors
  - Scientific Approaches for Assessing Worker Competencies and Proficiency: Key Performance Indicators









https://youtu.be/XyVB VsatXQ?feature=shared

Strategic research to support modernized approached to learning.

