

Instructor Skills Conference VII

learning theory and the industry trainer

September 2016



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Instruction / Learning / Training



Why did you become involved in training adults?

Adult Instruction

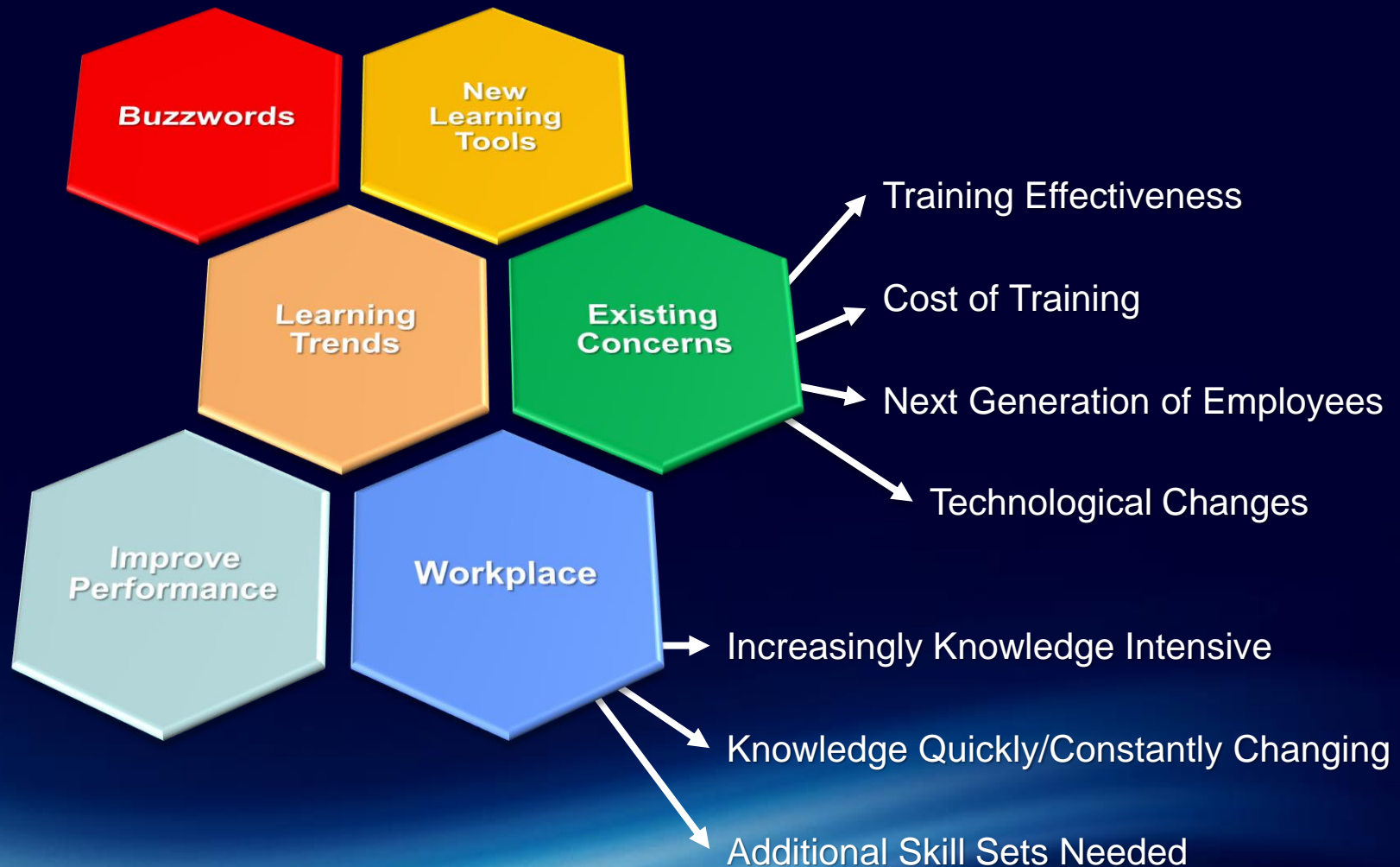


Instructing adults is complex:

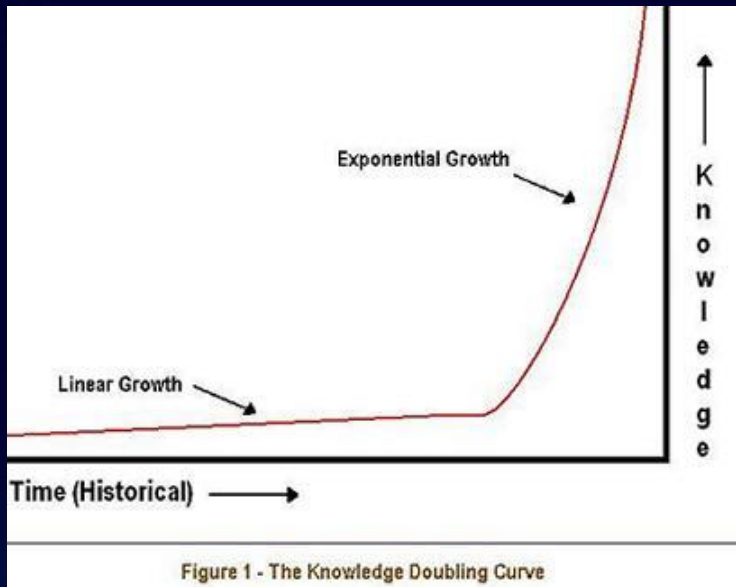
- Learning multiple processes
- Complex and multiple procedures
- Rules, regulations, policies
- Reduce time to competence
- Quality constraints



An Ever-changing Environment



Knowledge Growth



Knowledge Doubling Curve

- R. B. Fuller (futurist / writer)
 - Before 1900 – every century
 - End of WWII – every 25 years
 - Today – almost annually
-
- Both employee and TRAINER!

Different Training World

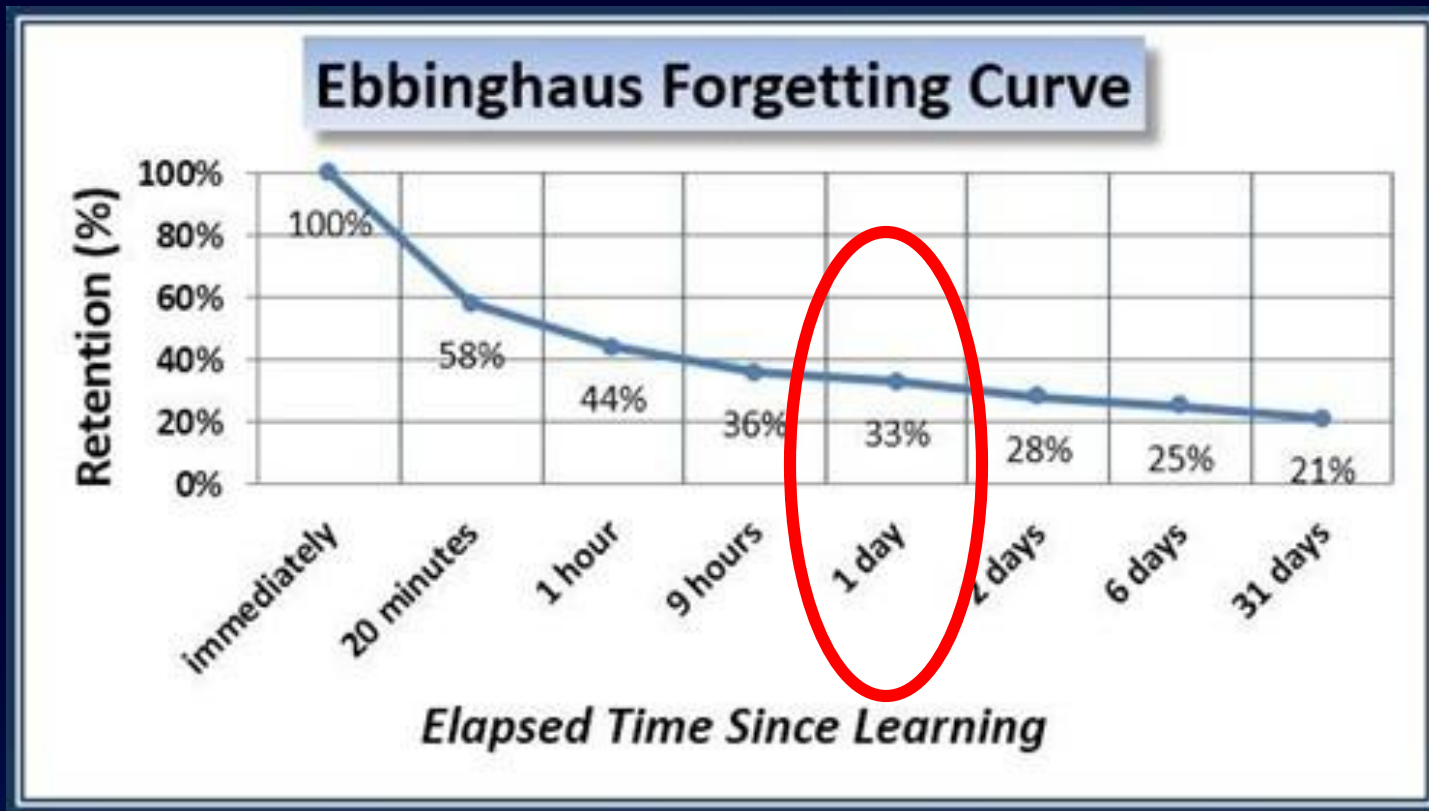


Today's trainer must know:

- How to employ learning theories
- How the workforce best learns
- How to design effective learning
- How to properly evaluate learning
- How to leverage new technology
- How to run the training business



Knowledge Retention



Buzzword Bingo



SPACING EFFECT

Mobility-Learning

MICRO-LEARNING

Learning Theory

Behaviorism

Millennials



eLearning

Constructivism

LMS

Social Learning

Cognitivism

Minimalism

ADDIE/SAM/AGILE

Situated Learning

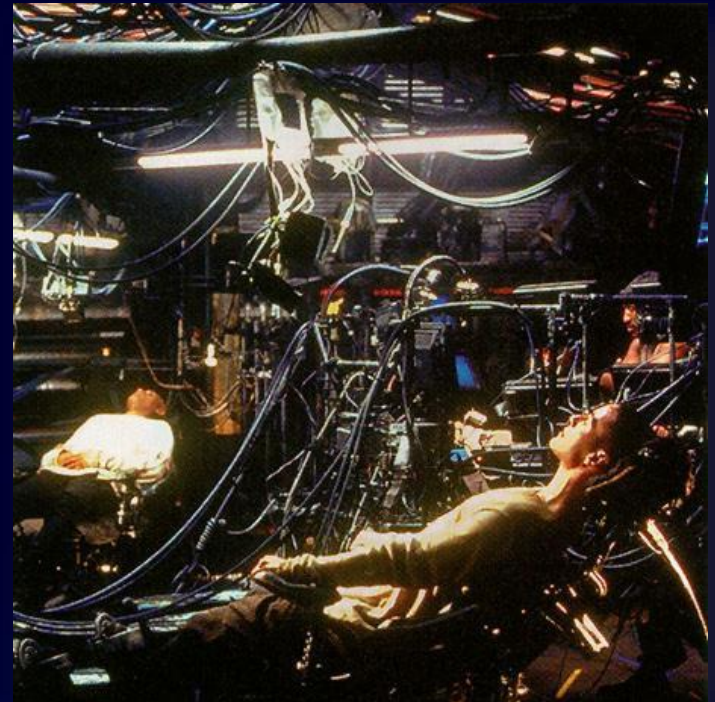
Instructor-led Training

EXPERIENTIAL

What is the Solution?

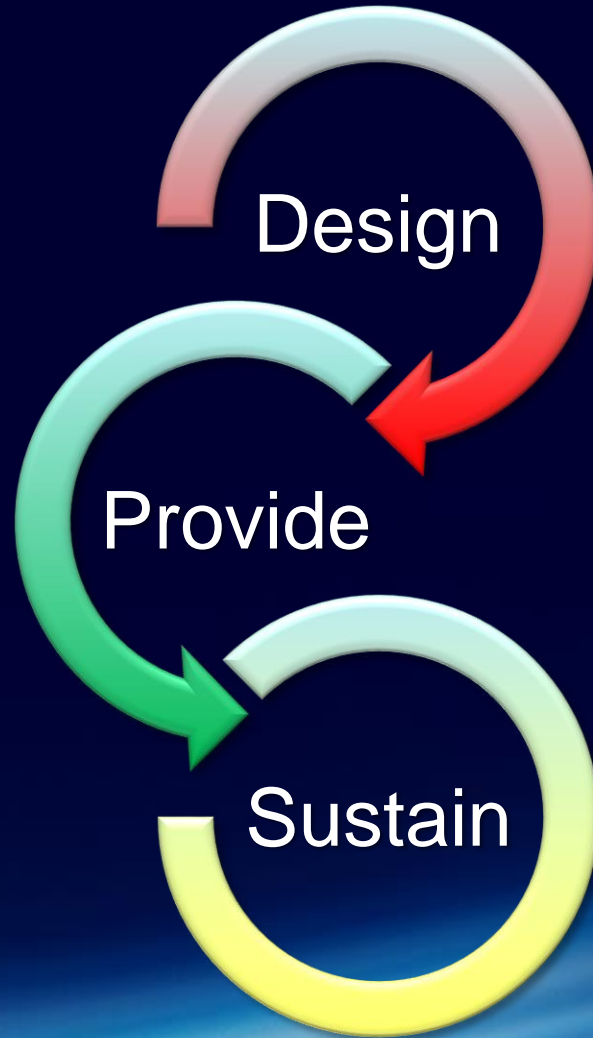


- Train people faster
- More tech tools
- Hire smarter people
- Hire pre-qualified people
- Dumb-down the job
- Automate the job



OR...

One Solution



Let's Refresh



Training: planned and systematic activities designed to promote the acquisition of knowledge, skills, and attitudes.

Learning: a process of acquiring new knowledge, and behaviors as a result of practice, study, or experience.

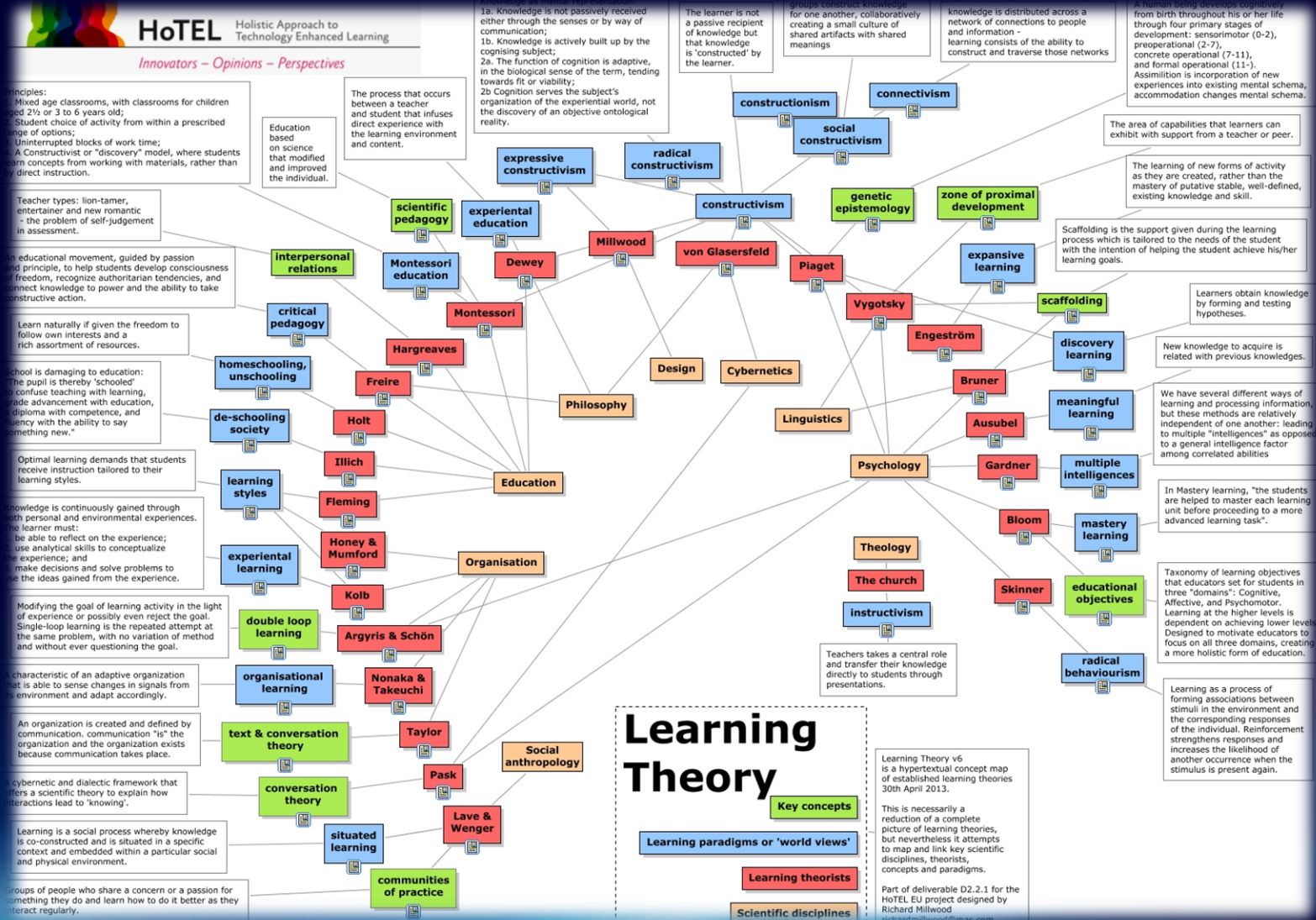
Effective Training: when trainees are intentionally provided with pedagogically sound opportunities to learn targeted knowledge, skills, and attitudes...through instruction, demonstrations, practice, and timely diagnostic feedback about their performance.

The Goal of Training: to create sustainable changes in behavior and cognition so that individuals possess the competencies they need to perform a job.

Effective Training



Learning Theories



Learning Theory v6 is a hypertextual concept map of established learning theories 30th April 2013.

This is necessarily a reduction of a complete picture of learning theories, but nevertheless it attempts to map and link key scientific disciplines, theorists, concepts and paradigms.

Part of deliverable D2.2.1 for the HoTEL EU project designed by Richard Millwood
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Noooo! NOT THAT! WHY???



Learning Theories are:

- The result of the scientific and systematic study of learning that provides:
 - A solid foundation for instructional systems design
 - A new perspective on training multiple generations on the job
 - Methods for designing training for different types of content and delivery
 - **MORE TOOLS IN THE TOOLBOX!**



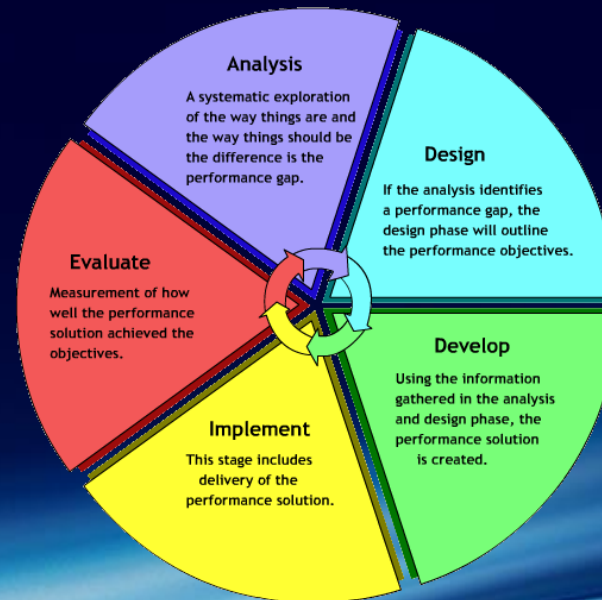
Learning Methodologies



ADDIE / SAM / AGILE, etc.

- Not learning theories
- Learning methodologies for instructional design / development
- Standard set of repeatable tasks for creating training

ADDIE



(Chico State IDTS, 2015)

(Russel, 2015)



Knowles and Andragogy

Concepts of Andragogy	Use of Concepts
Concept of Learner	<ul style="list-style-type: none">• Provide all content, material, and topics• Allow the learner to direct their learning based on needs
Role of the Learner's Experience	<ul style="list-style-type: none">• Set aside time for job observation and shadowing• Provides new experiences and opportunity for reflection
Readiness to Learn	<ul style="list-style-type: none">• Adults see training as a developmental opportunity
Orientation to Learning	<ul style="list-style-type: none">• Adults view new content, tasks, and jobs as problems to solve to become fully functional and productive
Motivation	<ul style="list-style-type: none">• Clearly communicate desired behaviors & expectations• Provide timely feedback (reinforcing & developmental)
Adults Need to Know Why	<ul style="list-style-type: none">• Clearly communicate learning objectives• Link the “what” they need to learn to the “why” it is important to learn

Behaviorism



What is it?

- Focuses on stimulus and response (behaviors); not worried about the processes taking place in the brain – knowing what to do.

Strengths

- Establishes clear goals that allow automatic responses to recognized cues.

When to Use

- To improve performance on specific job or task.
- To learn new skills, processes to achieve mastery or proficiency.
- To achieve automaticity in a critical skill.

Behaviorism



- Used for tasks requiring less cognitive processing and focuses on cues
- Training / Instructional Models
 - Instructor-led training
 - On-the-job training with a qualified employee (mentored learning)
 - Computer-based training, web-based, or eLearning
 - Structured, accurate, and easy-to-use procedures
 - Checklists, templates, and other types of forms
 - Programmed instruction
 - Opportunity to practice tasks
 - Clear and timely feedback
 - Assessments and evaluations



Cognitivism



What is it?

- Views learning as an active process that takes place within the learner and can be influenced by the learner. The outcome is based on the material presented and how the learner processes the information.

Strengths

- Helps learner organize information optimally so it can be readily assimilated.

When to Use

- To gain fluency in vocabulary, concepts, skills, and strategies in a specific area.
- To obtain in-depth understanding of a topic and/or add to existing knowledge.
- To provide background or foundational knowledge prior to additional training.

Cognitivism



- Used for tasks requiring increased cognitive processing (e.g. reasoning)
- Training / Instructional Models
 - Job-related activities that allow the learner to determine how to apply the learning to perform a task or solve a problem
 - On-the-job training with a qualified employee (mentored learning)
 - Table-top drills, scenario or case-based instruction, on-the-job drills
 - Discussions, question and answer sessions
 - Instructor-led training



Constructivism



What is it?

- The understanding that learners construct new ideas or concepts based on current and past knowledge. The learner can “experiment” with knowledge in a meaningful and logical process to apply the knowledge to other situations.

Strengths

- The learner applies knowledge to multiple real-life situations.

When to Use

- To know how and when to apply knowledge to different circumstances.
- To be able to solve various unique problems.
- To learn how to cooperate with others by sharing knowledge to solve problems.

Constructivism



- Used for tasks requiring high level cognitive processing (social negotiation) where knowledge is constructed rather than communicated.
- Training / Instructional Models
 - Case studies with more than one solution (case-based learning)
 - On-the-job training with a qualified employee (mentored learning)
 - Problem solving scenarios across numerous situations (action learning)
 - Team problem solving drills (collaborative learning)
 - Use of simulators and gamification
 - Instructor-led training



Social Learning Theory



What is it?

- The idea that people learn by watching, interacting, and sharing knowledge with others. By clearly observing others the individual learns and imitates the behavior and is rewarded with positive reinforcement.

Strengths

- Provided clear objectives, the learner is self-directed and motivated to learn from others.

When to Use

- To learn how to cooperate with others by sharing knowledge to solve problems.
- Where the opportunity to learn from a subject matter expert exists.
- Where the opportunity to learn from a larger audience or additional resources exists.

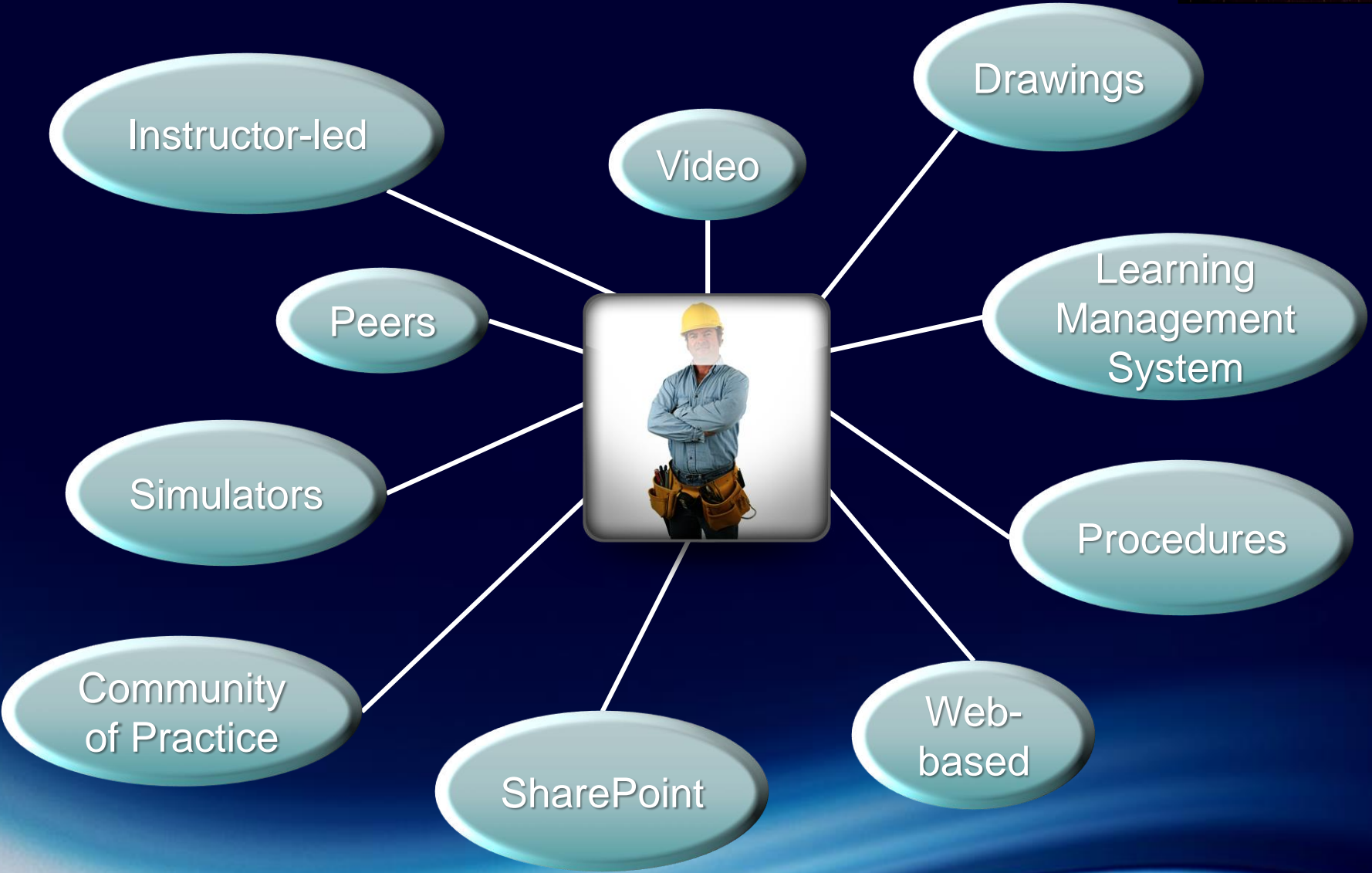
Social Learning Theory



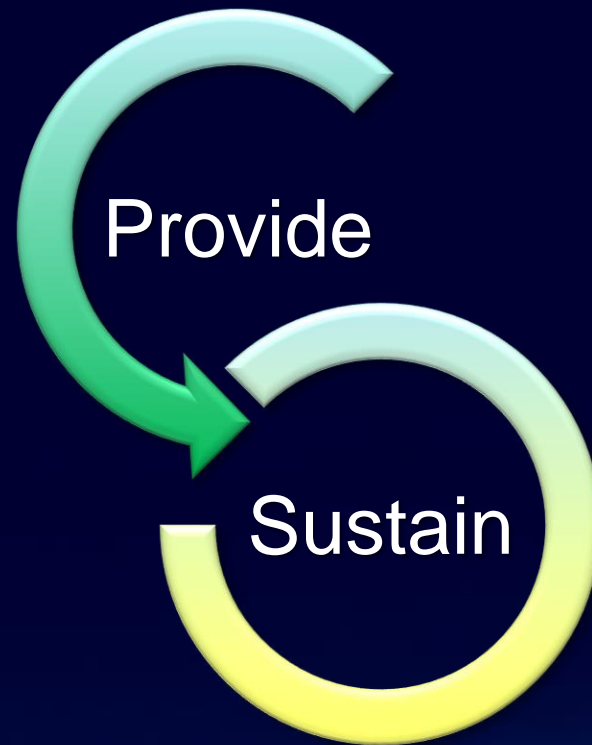
- Used for tasks requiring high level cognitive processing (social negotiation) where many different resources are available
- Training / Instructional Models
 - Instructor-led training
 - On-the-job training with a qualified employee (mentored learning)
 - Venues where learners can interact and share ideas with others
 - Use of additional resources such as:
 - Operating procedures
 - Peers or other subject matter experts
 - YouTube
 - Communities of Practice
 - Wikis, podcasts, other social media outlets



New Learning Model



Effective & Sustainable Training





Learning Modalities

But what about mobile-learning, micro-learning, etc.?

Learning Modality	% Adopted	Use / Outcomes
Instructor-led	88%	Knowledge transfer, engagement, satisfaction
Virtual instructor-led (VILT)	59%	Scalability, reduced costs, completion rates
Self-paced eLearning	74%	Accessibility, reduced costs, completion rates
Mentored Learning	47%	Knowledge transfer, engagement, application
Video	55%	Accessibility, reduced costs, engagement
Gamification	17%	Learner engagement, satisfaction
Mobile Learning	21%	Accessibility, reduced costs, satisfaction
Social / Collaborative	32%	Learner engagement, accessibility, satisfaction
Blended Approach	74%	Learner engagement, accessibility, cost savings, satisfaction

Micro-learning



Defined

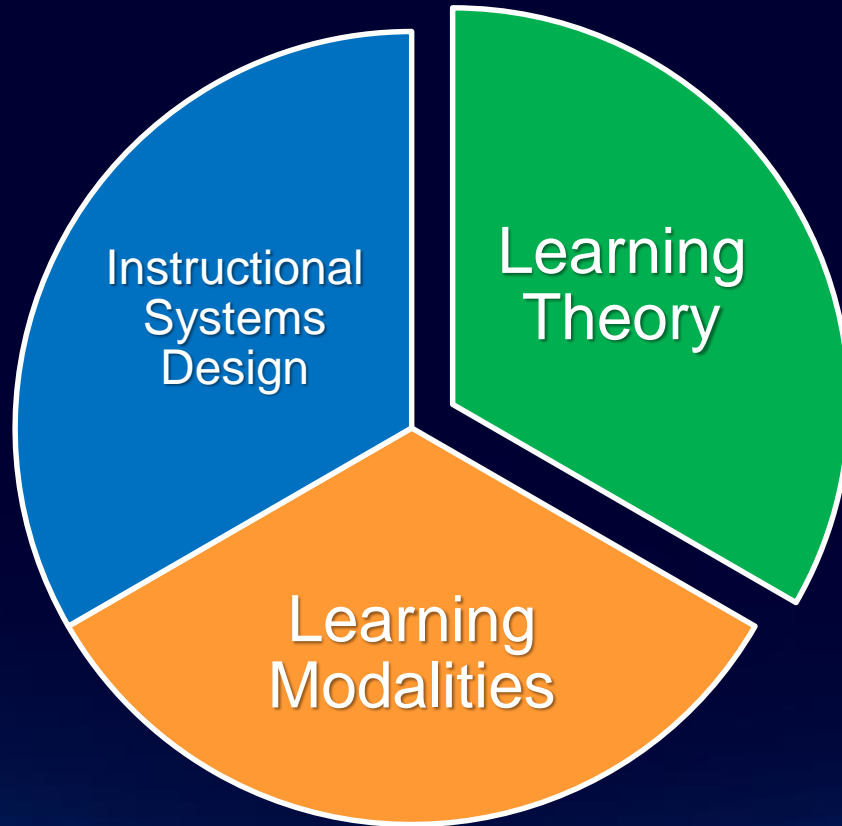
- A piece of learning content that can be consumed in 5 minutes or less

Designed

- Identify performance objectives
- Determine program technology and structure
- Create or select resources
- Promote
- Monitor, modify, and evaluate



A Good Fit



Learning Theories provide:

- A solid foundation for ISD
- A new perspective on training multiple generations on the job
- Methods for designing training for different types of content
- A basis for choosing delivery methods

Here is the Question



What will you do to learn more about Learning Theories to build more effective and sustainable training?



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Thank you!