



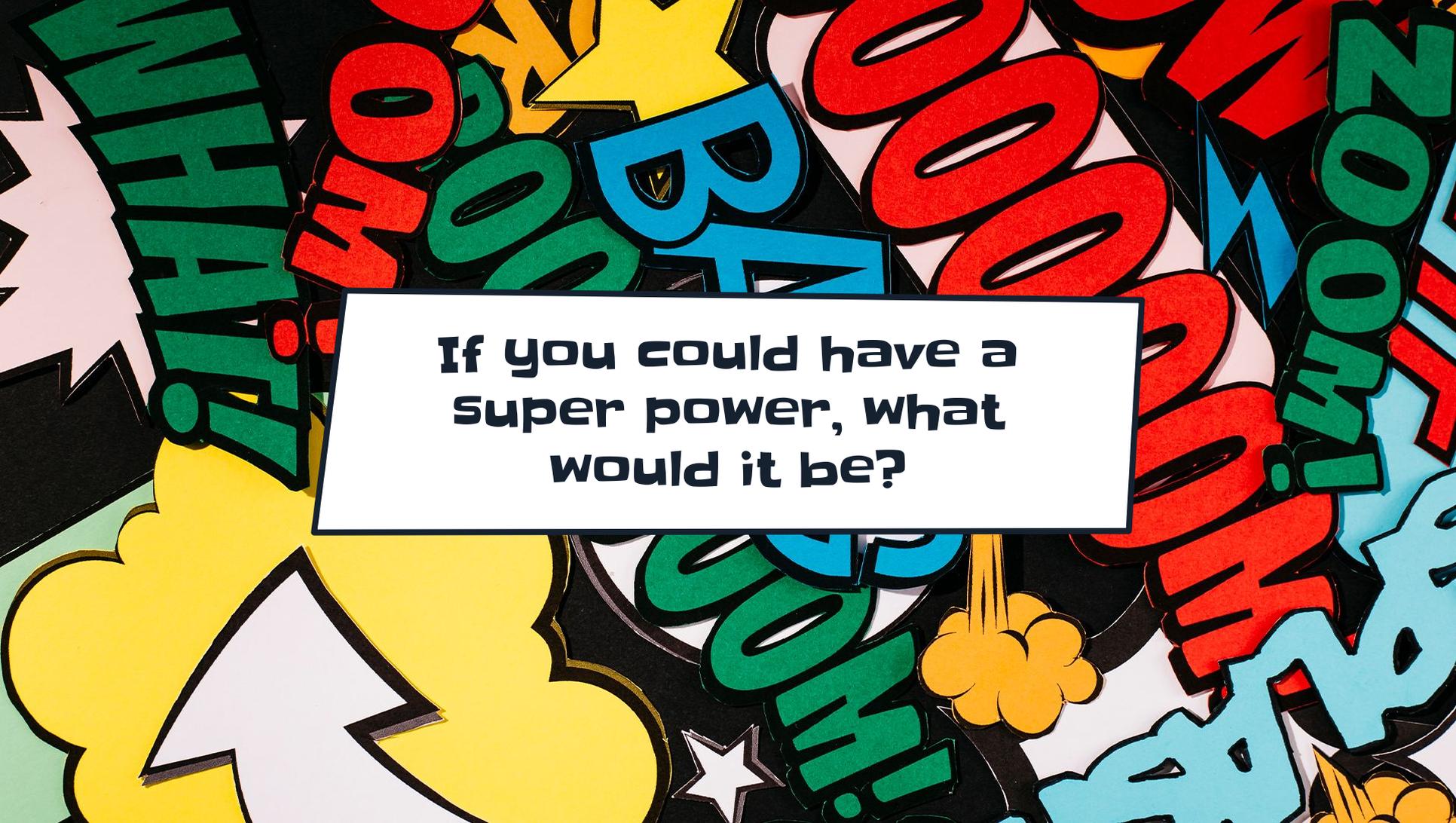
**Class
Announcements**



Training & Development

Psych 301

Instructor: Melanie Standish



**If you could have a
super power, what
would it be?**

WELCOME TO TRAINING HEADQUARTERS, HEROES!



01

FOUNDATIONS OF
TRAINING &
LEARNING

02

TRAINING
METHODS

03

TRAINING
EVALUATION

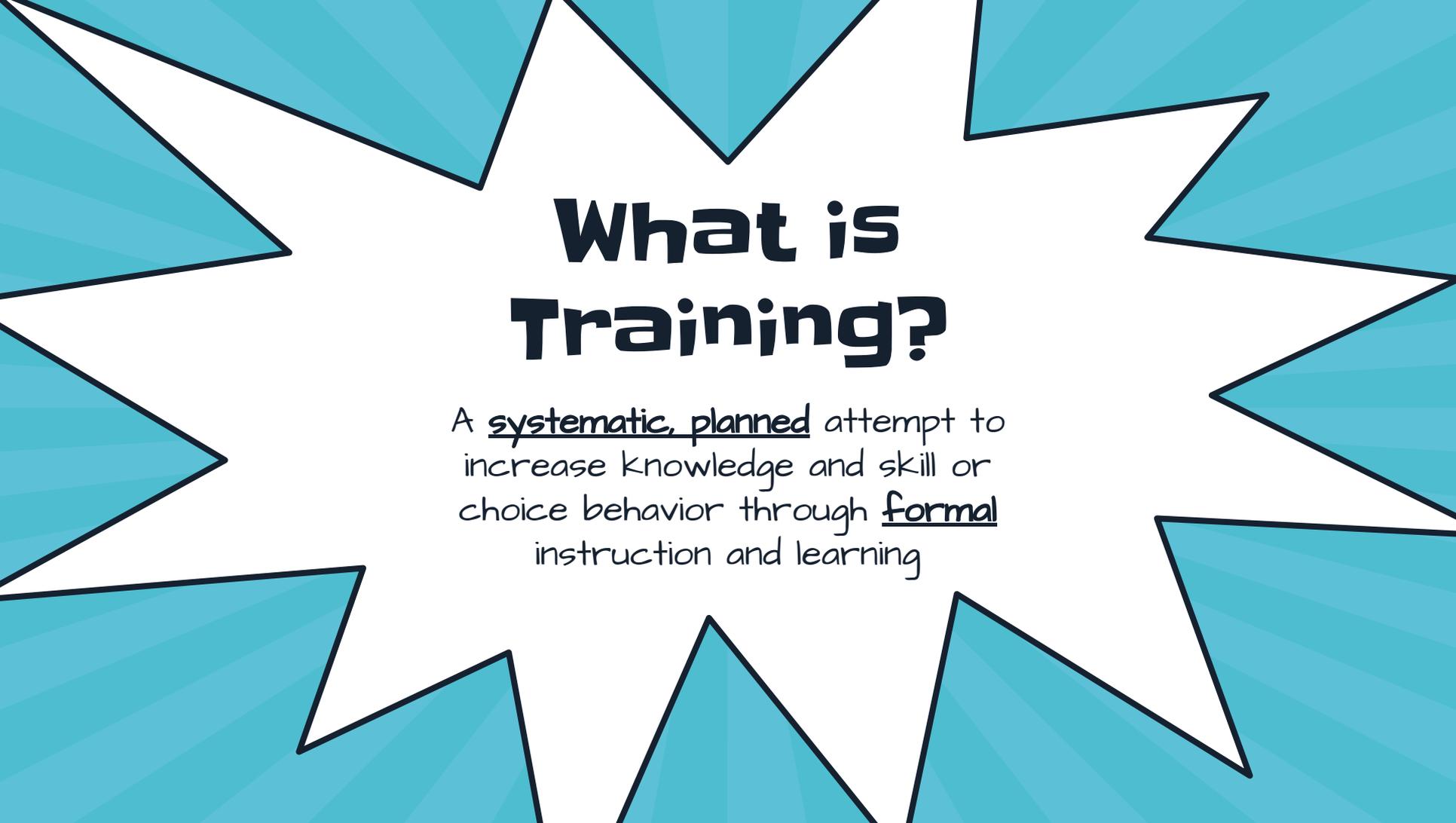
04

SPECIALIZED TRAINING
PROGRAMS



01

**FOUNDATIONS
OF TRAINING &
LEARNING**



What is Training?

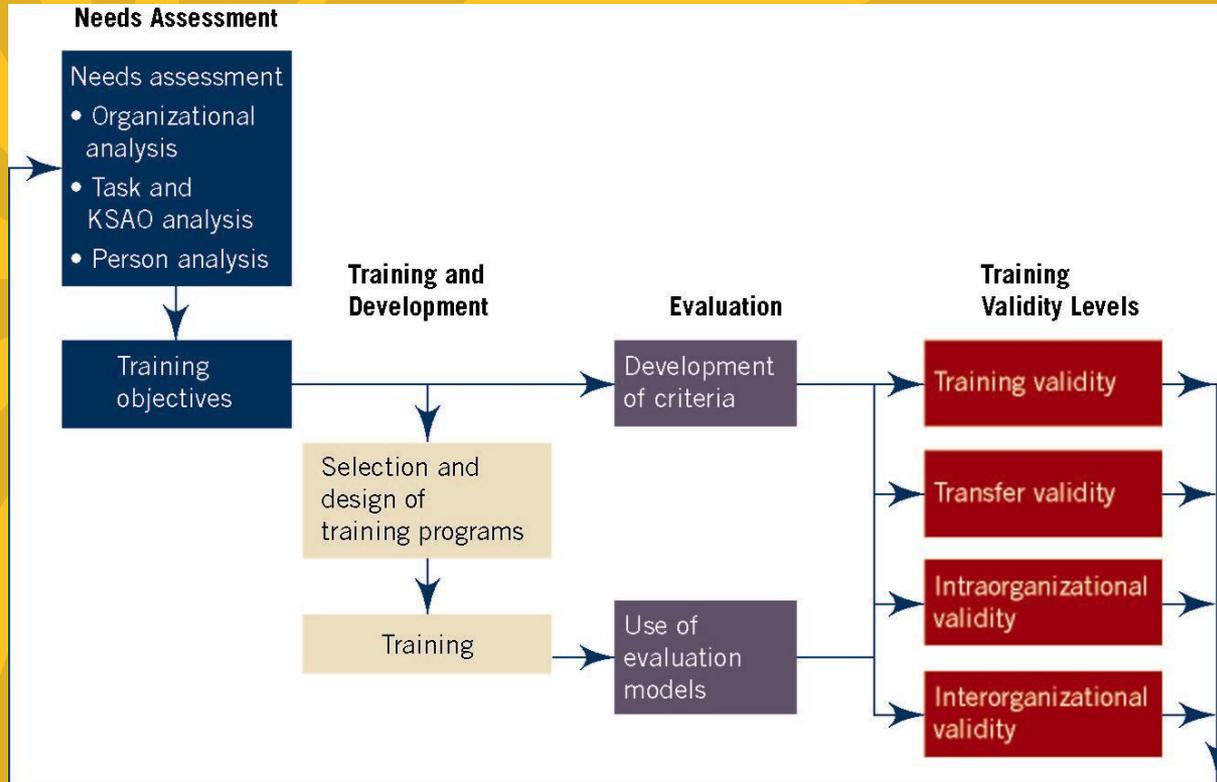
A systematic, planned attempt to increase knowledge and skill or choice behavior through formal instruction and learning



Importance of Training

- Organizations invest significant resources in training and development (T&D) - ATD State of the Industry Reports
- **\$164.2 billion** spent on T&D in 2012

GOLDSTEIN & FORD'S (2002) TRAINING MODEL



Training Needs Assessment (TNA)



What should the training accomplish?

- ...in terms the **organization's** goals?
- ...in terms of the specific **tasks**?
- ...in terms of the **people** involved?

Accomplish this using systematic analysis

- Surveys
- Critical incidents
- Cognitive task analysis

This step is often ignored by “vendors”

COMMON TRAINING NEEDS

- Work Readiness Skills
- Self-Directed Learning Skills
- Adaptability Skills
- Teamwork Capabilities
- Expatriate Skills
- Critical Leadership Capabilities

(Campbell & Kuncel, 2002; Manpower Group, 2015; Payscale, 2016)



What is Learning?

- "A **relatively permanent change** in knowledge or skill produced by experience" (Weiss, 1990, p. 172; 1/0)
- "A multidimensional process that results in a **relatively enduring change** in a person or persons...physically, psychologically, and socially" (Alexander et al., 2009, p. 186; Ed Psych)
- "A **relatively permanent change** in human capabilities that can include knowledge, skills, attitudes, behaviors, and competencies that are not the result of growth processes." (Noe, 2013, p. 152)

LEARNING OUTCOMES

COGNITIVE LEARNING OUTCOMES

- Verbal knowledge
 - Declarative knowledge (DK) - knowing what
 - Procedural knowledge (PK) - knowing how
 - Strategic/tacit knowledge - knowing which, when, and why
- Knowledge organization - mental models
- Cognitive strategies or metacognition - management of thinking and learning process

FOUNDATION FOR SKILL DEVELOPMENT

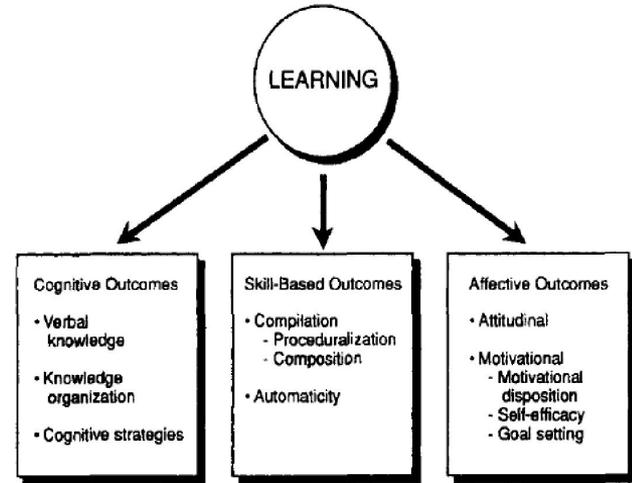


Figure 1. A preliminary classification scheme of learning outcomes.
Kraiger, Ford, & Salas (1993)

LEARNING OUTCOMES

Skill-based Learning Outcomes

- Initial skill acquisition - initial attempts at skills; error prone
- Compilation - with practice individual steps combined and fewer errors
- Automaticity - with A LOT of practice skill performed quickly with no errors

Affective Learning Outcomes

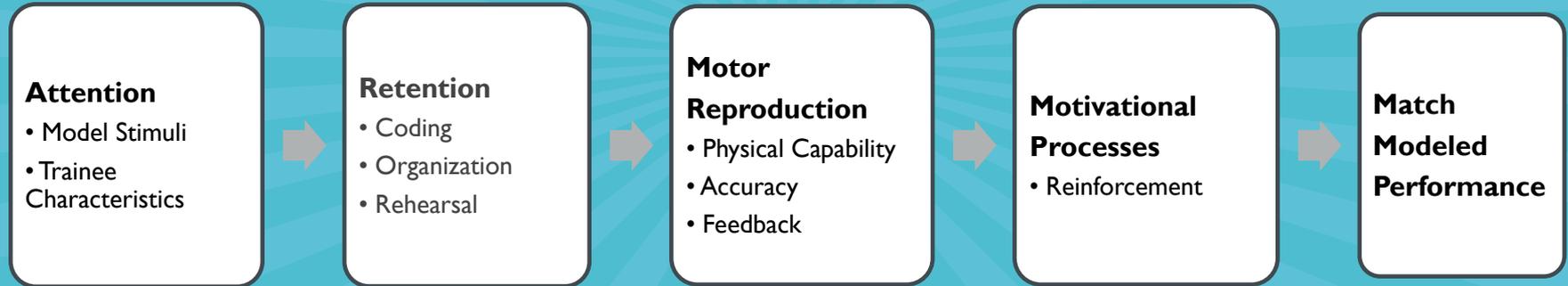
- Attitudinal - internal state that influences choice of personal action (e.g., attitudes towards diversity)
- Motivational
 - Goal orientation
 - Self-efficacy
 - Goal-setting

LEARNING THEORY

- BANDURA'S SOCIAL LEARNING THEORY

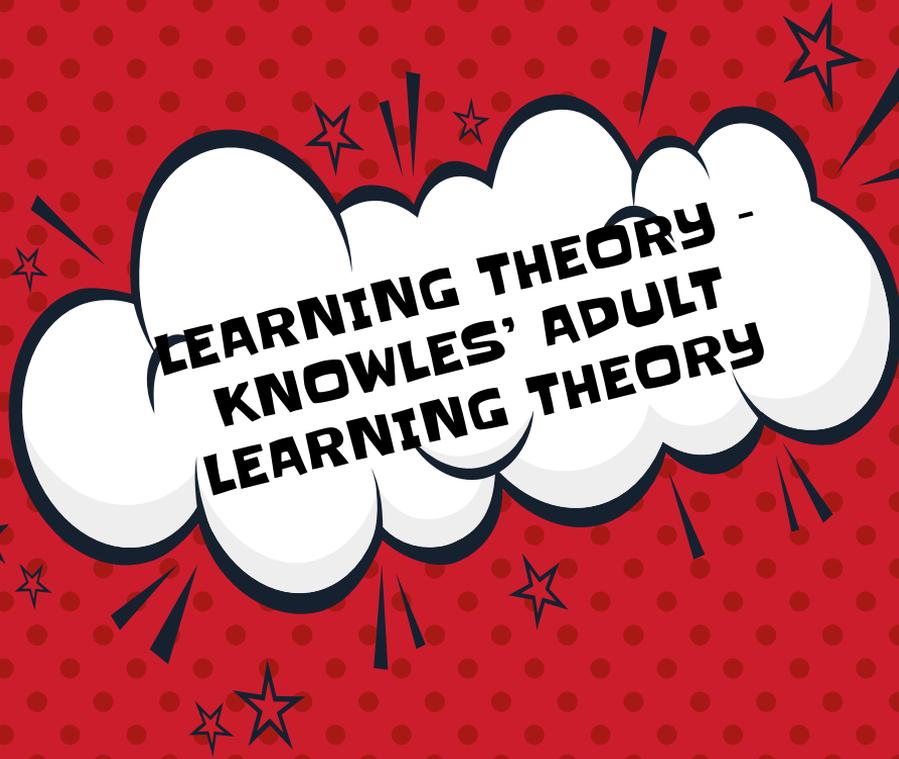
- Recognizes that behavior that is reinforced tends to be repeated
- Emphasizes that people learn by observing others (models) whom they believe are credible and knowledgeable
- Feeling self-efficacious increases likelihood of behavior
- Person's self-efficacy can be increased using several methods
 - Performance accomplishments
 - Vicarious experience
 - Verbal persuasion
 - Emotional arousal

LEARNING THEORY - BANDURA'S SOCIAL LEARNING THEORY



LEARNING THEORY - LOCK & LATHAM'S GOAL SETTING THEORY

- Assumes that behavior results from a person's conscious goals and intentions
- Goals influence a person's behavior by:
 - Directing energy and attention
 - Sustaining effort over time
 - Motivating the person to develop strategies for goal attainment
- Learning facilitated by
 - Goal setting - specific, difficult goals are best
 - Feedback - knowledge of results enhances motivation, learning, and performance



**LEARNING THEORY -
KNOWLES' ADULT
LEARNING THEORY**

- Andragogy - "art and science of helping adults learn" (Knowles, 1980, p. 43)
- Developed out of a need to explain how adults learn
- Assumptions of the theory
 - Adults have a need to be self-directed.
 - Adults bring more work-related experiences into the learning situation.
 - Adults' readiness to learn is oriented to their social role
 - Adults are oriented toward a problem or current performance, and therefore immediate application of learning
 - Adults need to know why they are learning something
 - Adults are motivated to learn by internal and external factors

PRINCIPLES OF LEARNING

- Active practice!
 - Actively participating in training/work tasks
- Massed practice
 - Individuals practice task continuously & without rest (e.g. cramming for test)
- Distributed (Spaced) practice
 - Rest intervals between practice sessions
 - Generally results in more efficient learning & retention than massed practice



PRINCIPLES OF LEARNING

- Whole learning
 - When entire task is practiced at once
 - More effective when complex task has relatively high organization
- Part learning
 - When subtasks are practiced separately & later combined
 - More effective when complex task has low organization
 - e.g. surgeons & pilots



FIDELITY

- Extent to which task trained is similar to task required by job
- Physical fidelity
 - Extent to which training task mirrors physical features of task performed on job
- Psychological fidelity
 - Extent to which training task helps trainees develop KSAOs necessary to perform job

Training's Ultimate Criterion: Transfer

Positive Transfer - degree to which trainees effectively apply the knowledge, skills, and attitudes gained in the training context to the job (Baldwin & Ford, 1988)

Generalization

- Near transfer
- Far transfer

Maintenance

- Initiation
- Maintenance

Training's Ultimate Criterion: Transfer

Why is this so difficult?

- Trainees never learned it in the first place
- Learned it, but did not retain it
- Retained it, but did not recognize when to use it
- Recognized when to use it, but lacked self-efficacy to do so
- Plenty of self-efficacy, but had no motivation to use it

WHAT AFFECTS LEARNING & TRANSFER?

THE DESIGN

Transfer Principle	Emphasis	Appropriate Conditions	Type of Transfer
<u>Identical elements</u>	Training environment is identical to work environment.	<ul style="list-style-type: none">• Training focus: closed skills• Work environment: predictable & stable• Example: Equipment use	Near
<u>Stimulus generalization</u>	General principles are applicable to many different work situations.	<ul style="list-style-type: none">• Training focus: open skills.• Work environment: unpredictable & variable• Example: Training in interpersonal skills.	Far
<u>Cognitive theory</u>	Meaningful material and coding schemes enhance storage and recall of training content.	<ul style="list-style-type: none">• All types of training and environments.	Near and far

WHAT AFFECTS LEARNING & TRANSFER?

THE INDIVIDUAL

“Readiness”

- Ability, personality
- Experience
- Goal Orientation

Motivation

- Motivated to attend training
- Motivated to do well in training
- Motivated to apply training to job

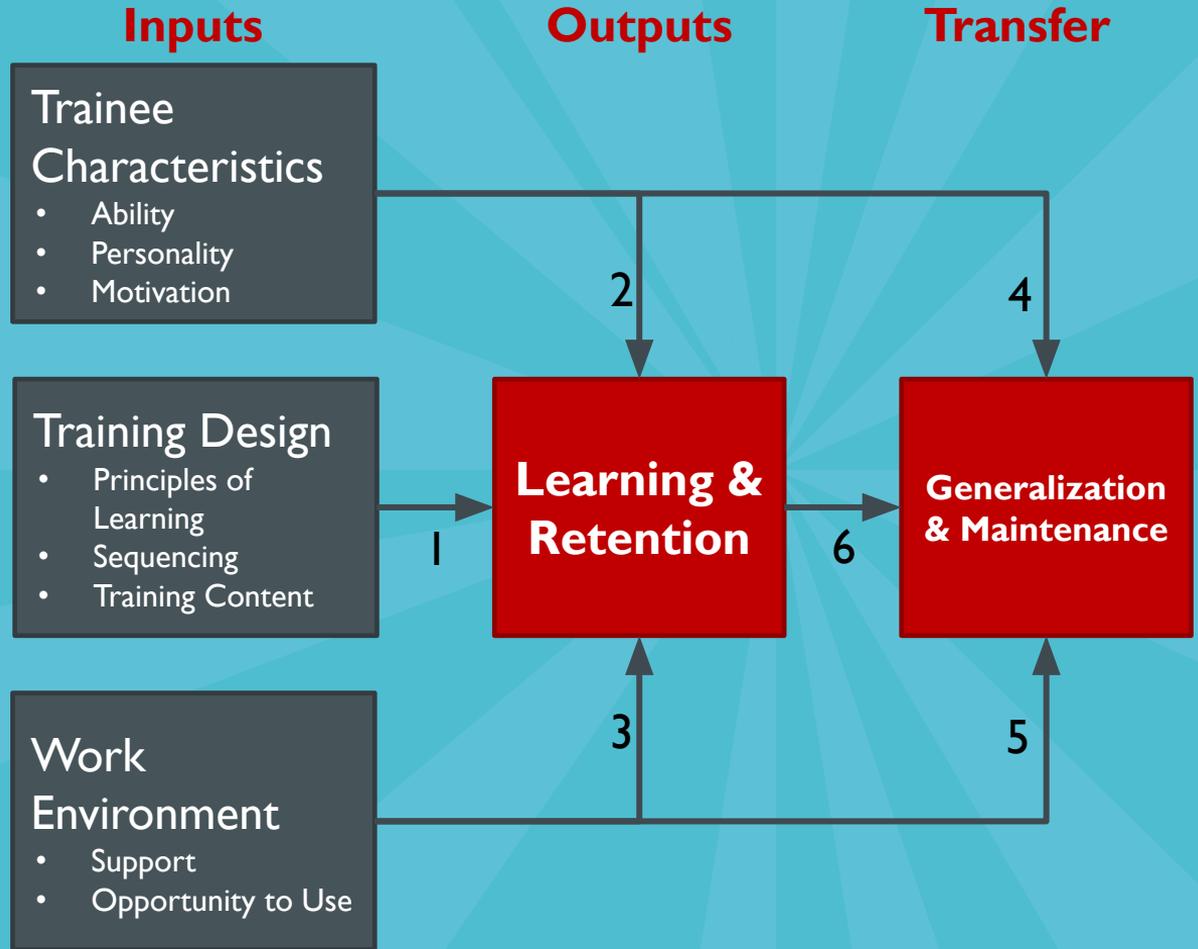
WHAT AFFECTS LEARNING & TRANSFER?

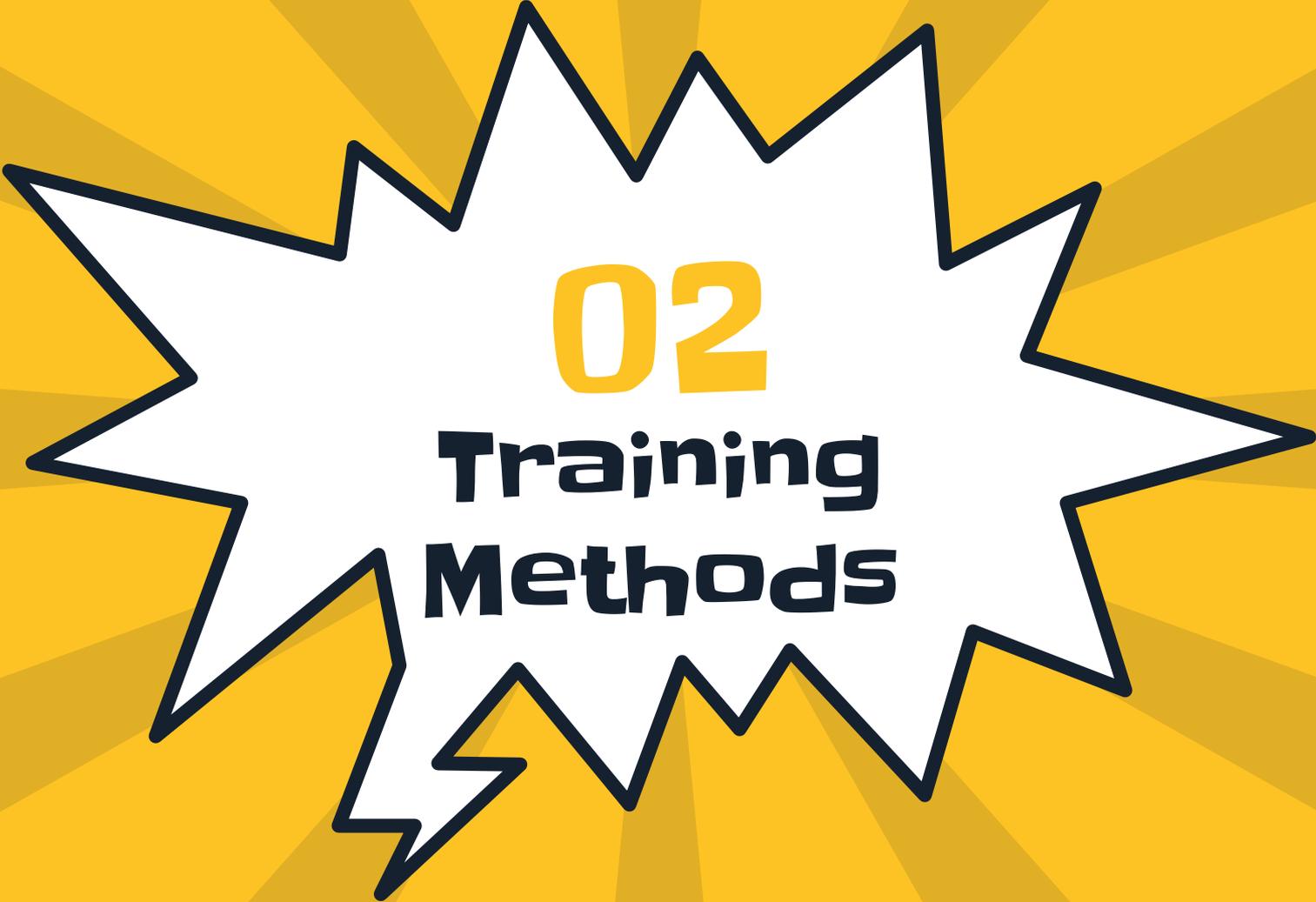
THE
ENVIRONMENT

- Support
- Climate
- Opportunity

Baldwin & Ford (1988)

Model of Learning & Transfer Process





02

**Training
Methods**



How should we train?

Think back to a class or a lesson plan where:

- The information just didn't seem to stay with you
- You still remember vividly what you learned

What was it that helped you (or prevented you) from remembering?

What methods should we use?



People remember...

- 10% of what they read
- 20% of what they hear
- 30% of what they see (e.g. videos)
- 50% of what they hear & see
- 70% of what they say & write
- 90% of what they say & do

COMMON TYPES OF TRAINING

On-Site Methods

- On-the-job training
- Apprenticeship
- Job Rotation

“Off-Site” Methods

- Presentation Methods
 - Lecture
 - Audio-visual presentations
- Hands-on Methods
 - Practice
 - Programmed Instruction/Self-directed learning
 - Simulations
 - Case studies
 - Role plays

WEB-BASED TRAINING



Best of several worlds

- Can be conducted on-site or off-site
- Can include a combination of other methods
- Can offer automated individualized attention
- Can provide real-time feedback
- Can be updated system-wide in real time

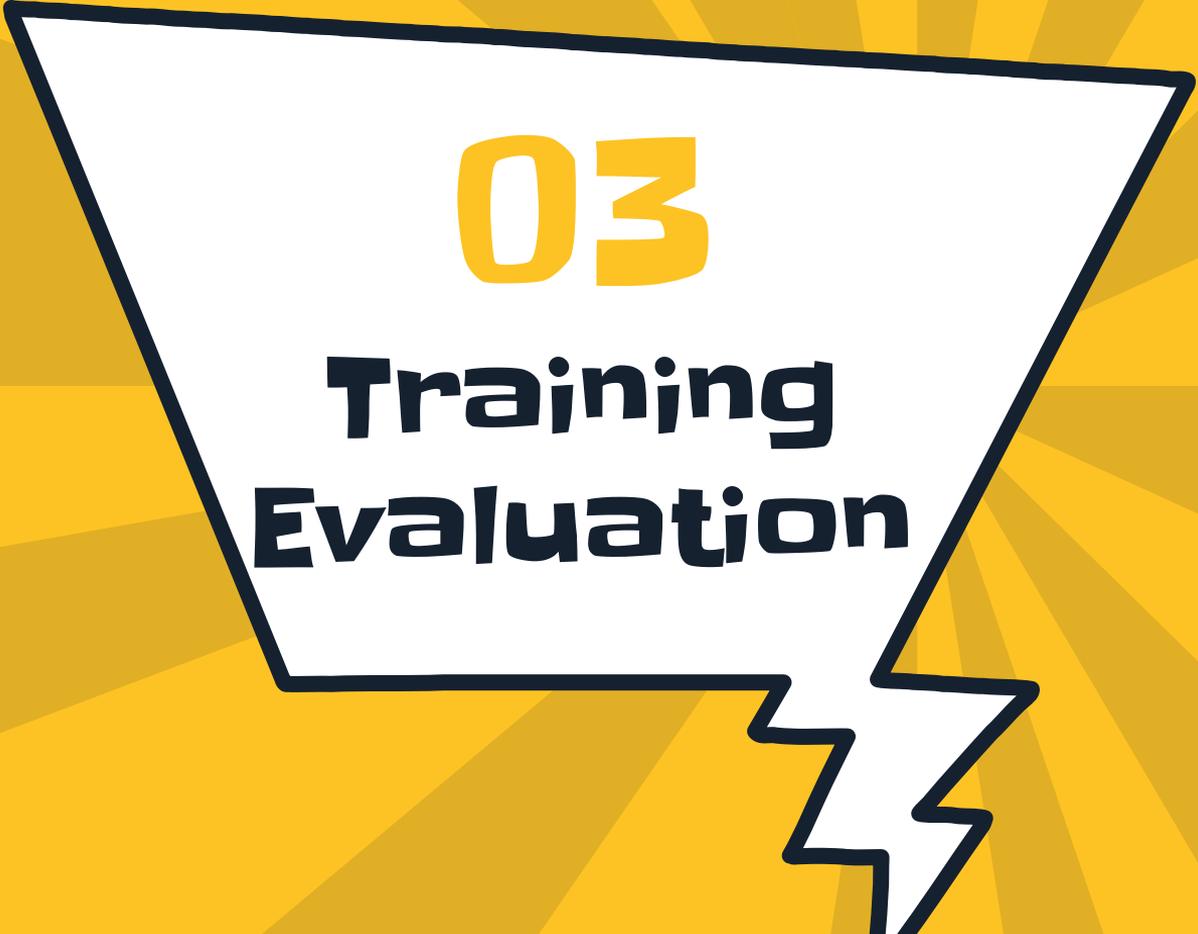
Problems

- Comparative effectiveness unknown
- Technological roadblocks
- Unknown Moderators

EFFECTIVENESS OF WEB-BASED (WBI) & CLASSROOM INSTRUCTION (CI)

Outcome	k	N	d	SE _d
Reactions				
WBI vs. CI	22	2,580	.00	.05
Blended vs. CI	11	1,769	-.15*	.06
Declarative Knowledge				
WBI vs. CI	71	10,910	.15*	.02
Blended vs. CI	33	6,799	.34*	.03
Procedural Knowledge				
WBI vs. CI	12	944	-.07	.07
Blended vs. CI	6	507	.52*	.09

Sitzmann et al. (2006)



03

**Training
Evaluation**

EVALUATING TRAINING - KIRKPATRICK

- Reaction Criteria
 - Did the trainee like the training?
 - Most common measure
 - Affective vs. Utility reactions (Alliger et al., 1997)
- Learning Criteria
 - Did the trainee learn anything from the training?
 - Immediate knowledge, knowledge retention, behavior/skill demonstration (Alliger et al., 1997)

EVALUATING TRAINING - KIRKPATRICK

- Behavioral Criteria
 - Did the training cause any changes in behavior?
 - Also called transfer
- Results Criteria
 - Did the training change any organizational outcomes?
 - Least common measure

RELATIONSHIPS AMONG CRITERIA

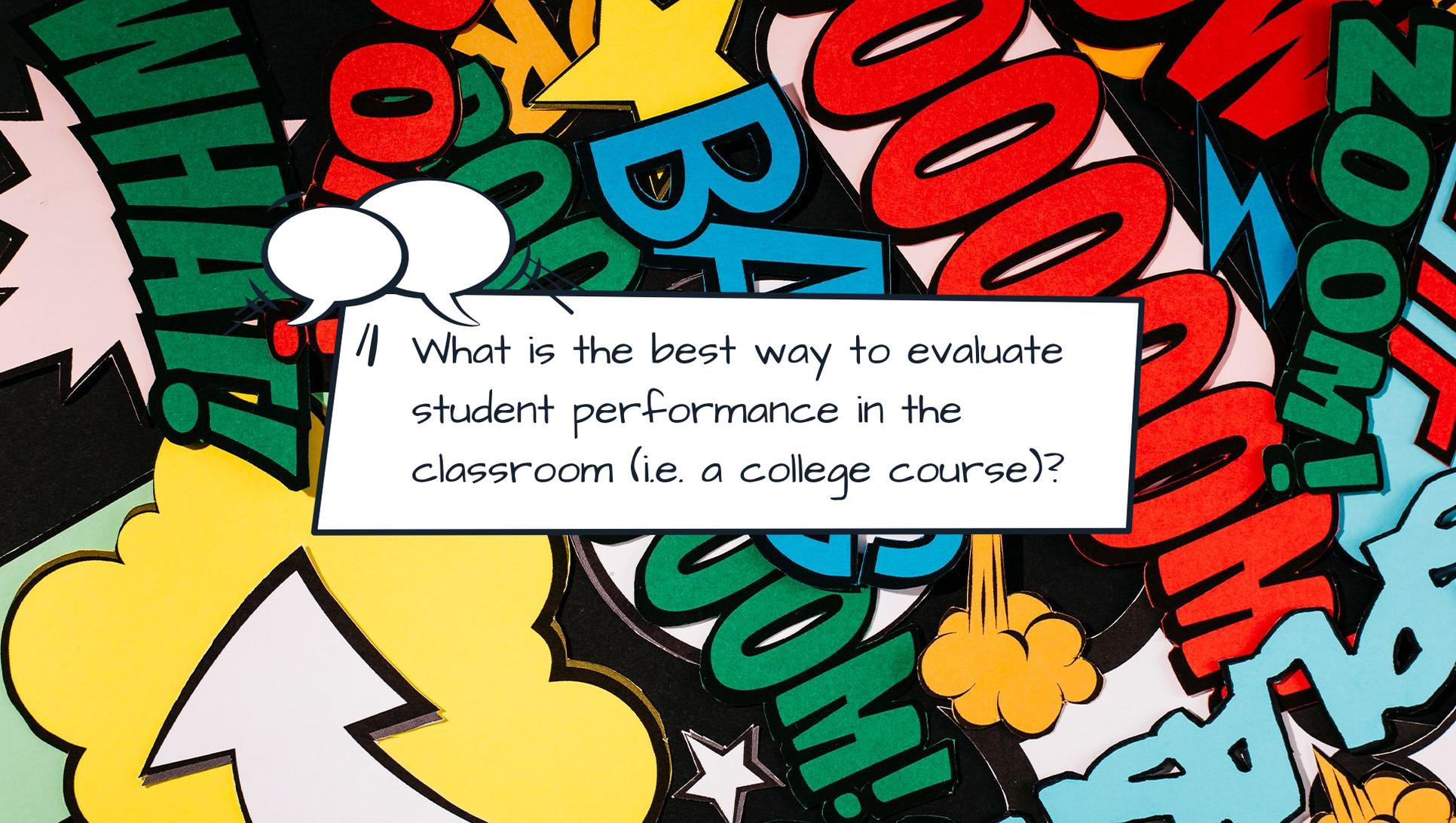
Construct	r (k)			
	1	2	3	4
1. Affective Reactions				
2. Utility Reactions	.34 (3)			
3. Immediate Learning	.02 (11)	.26 (6)		
4. Retention	n/a	n/a	.35 (2)	
5. Transfer	.07 (6)	.18 (3)	.11 (16)	.08 (4)

From Alliger et al. (1997)

EFFECTIVENESS OF TRAINING

Type of Effects	Average gain (d)	k (N)
Reactions	.60	15 (936)
Learning	.63	234 (15, 014)
Behavior	.62	122 (15,627)
Results	.62	26 (1,748)

From Arthur et al. (2003)



// What is the best way to evaluate student performance in the classroom (i.e. a college course)?

TRAINING EVALUATION DESIGNS

- Pretest-Posttest Control Group Design - strongest training evaluation design
 - Random assignment of participants to conditions
 - Control group
 - Measures obtained before & after training
- Other designs may be better due to practical/resource constraints

04

**Specialized
Training Programs**

MANAGEMENT & LEADERSHIP DEVELOPMENT

- Assessment centers
 - Evaluate organizational, leadership, & communication skills
 - Managers with high potential generally invited to participate
- 360 degree feedback
 - Received positively & effective at improving performance

MANAGEMENT & LEADERSHIP DEVELOPMENT

- Coaching/Mentoring
 - Practical, goal-focused form of personal, one-on-one learning for busy professionals
 - Practical, flexible, targeted form of individualized learning for managers/executives
- Informal training
 - Include specific job assignments, experiences, & activities outside work

SEXUAL HARASSMENT TRAINING

- Forms of harassment
 - Quid pro quo
 - Hostile working environment
- EEOC encourages following steps:
 - Clearly communicate a zero tolerance policy
 - Establish an effective grievance process
 - Take immediate & appropriate action when employee complains

SEXUAL HARASSMENT TRAINING

- Supervisors should receive additional training beyond what employees receive
- Effective in increasing knowledge of & ability to identify sexual harassment
- More field research necessary to understand short- & long-term effects

ETHICS TRAINING

- Appropriate approach likely is to use both selection & training to increase likelihood that employees will perform jobs ethically

CROSS-CULTURAL TRAINING (CCT)

- Critical in helping expatriates adapt to new environments
- Symptoms of culture shock
 - Homesickness
 - Irritability
 - Loss of ability to work effectively

CROSS-CULTURAL TRAINING

- Cross-Cultural Training
 - Designed to prepare individuals from one culture to interact more effectively with individuals from different cultures
- Cultural assimilator
 - Culture-specific assimilator
 - Culture-general assimilator

THANKS!

Do you have any questions?

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