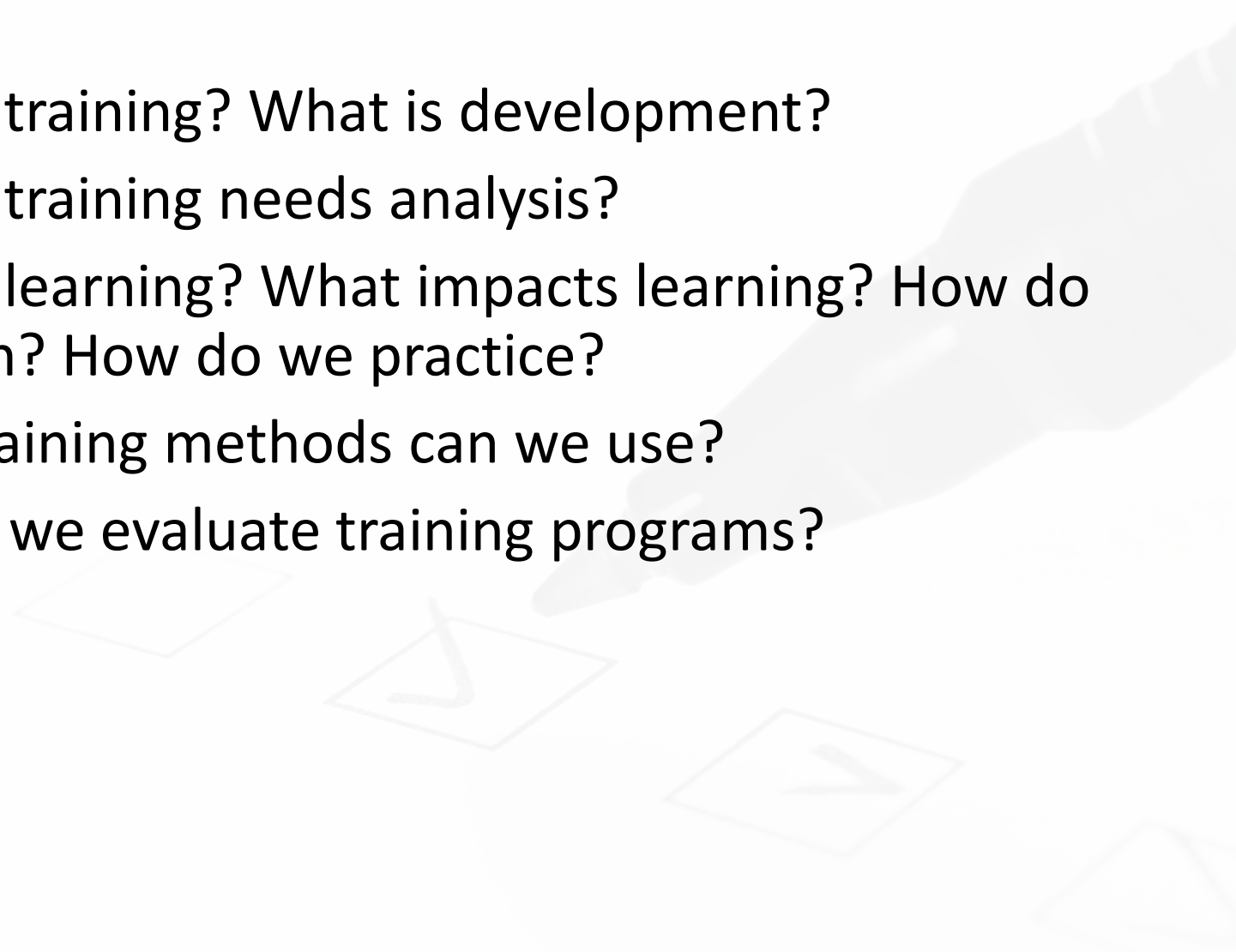# Training and Development

Agenda

- What is training? What is development?
- What is training needs analysis?
- What is learning? What impacts learning? How do we learn? How do we practice?
- What training methods can we use?
- How do we evaluate training programs?

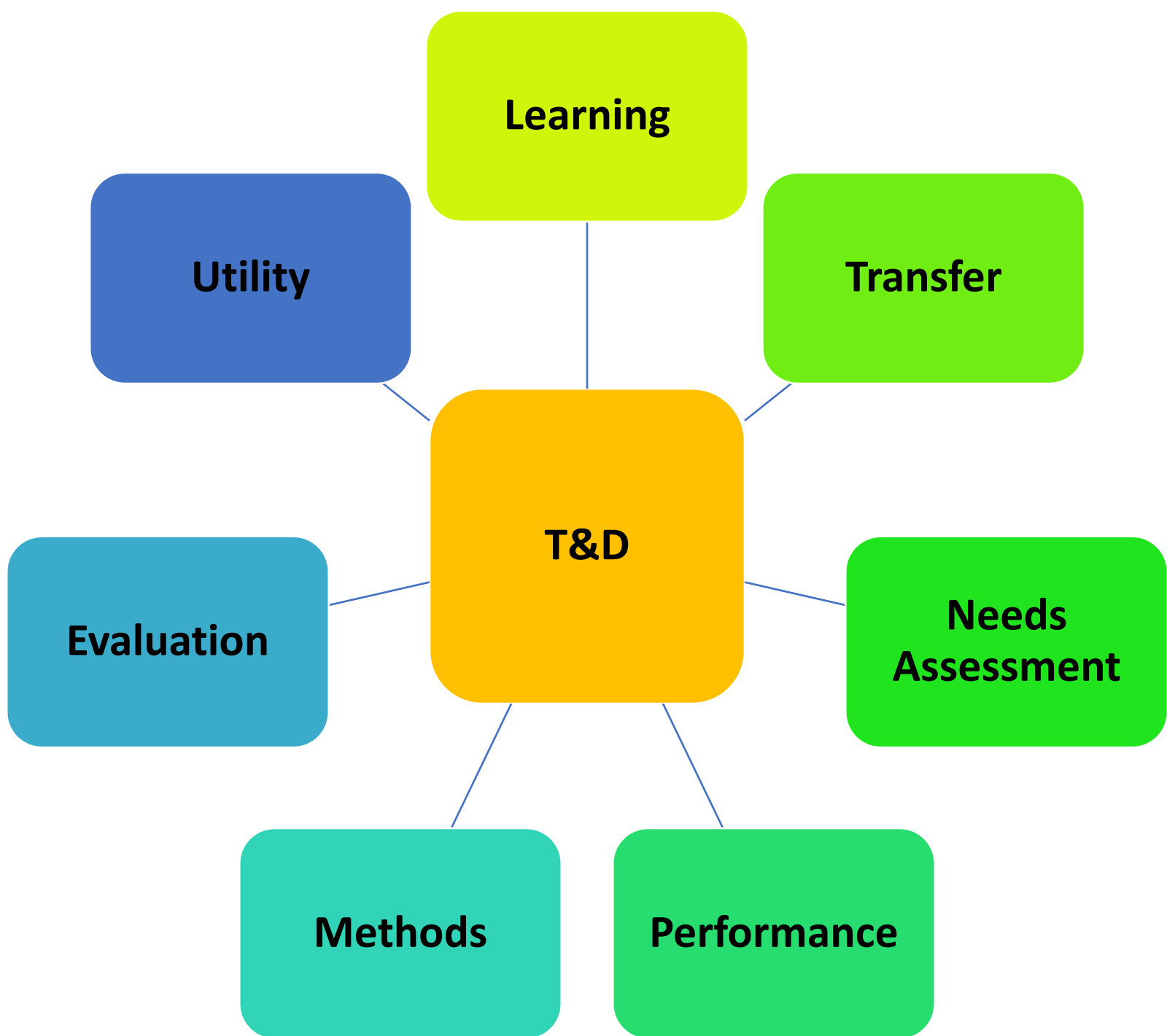# What is training?

- **Training:** Systematic acquisition of skills, concepts, or attitudes resulting in improved performance in another environment

- Benefits
    - Can increase profitability per employee
    - Can enhance employees' value to the organization
    - Can help the organization attract and retain talent
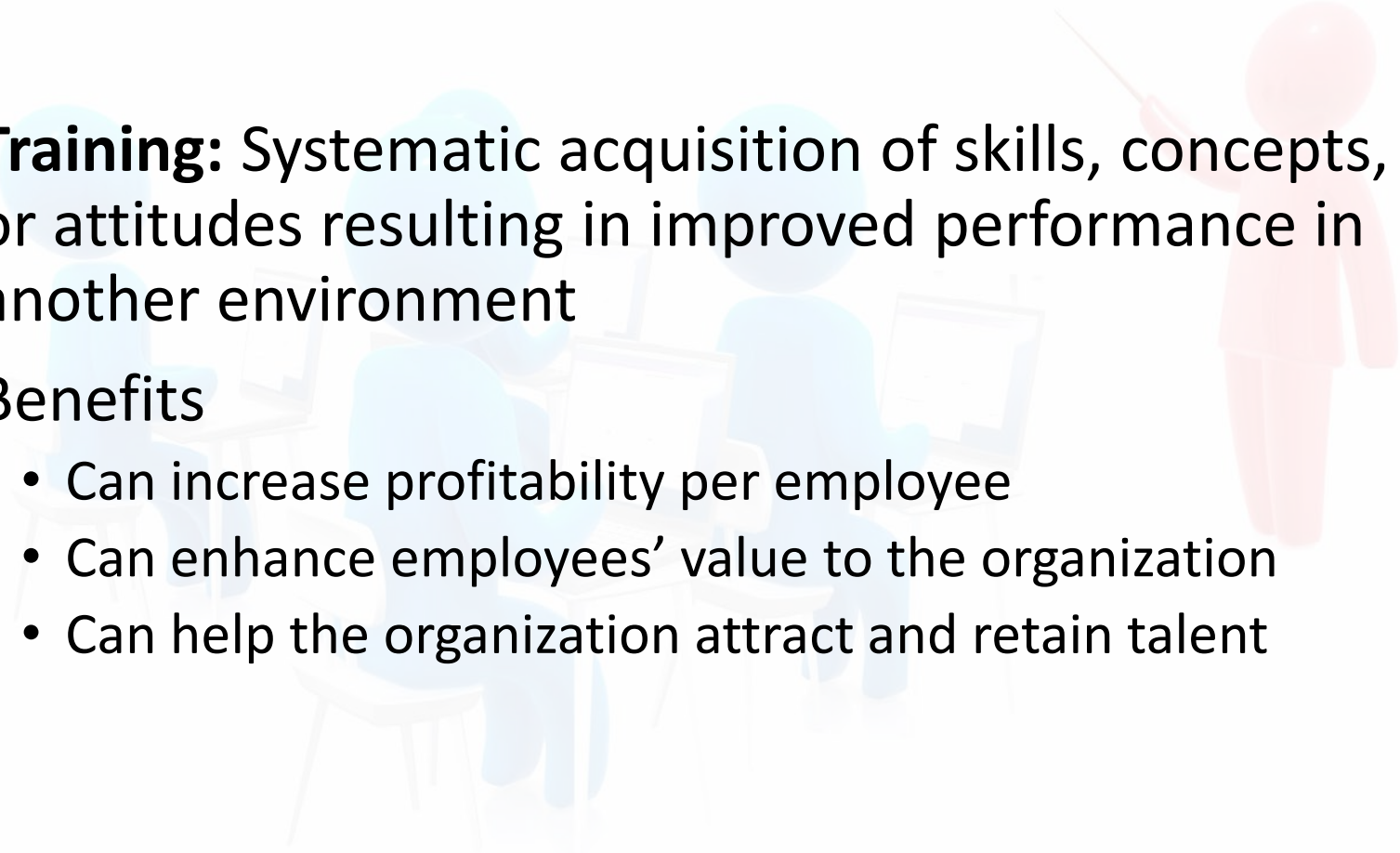
What is training?

- T&D models assume knowledge and skills are malleable
  - Selection models assume personality and abilities are stable
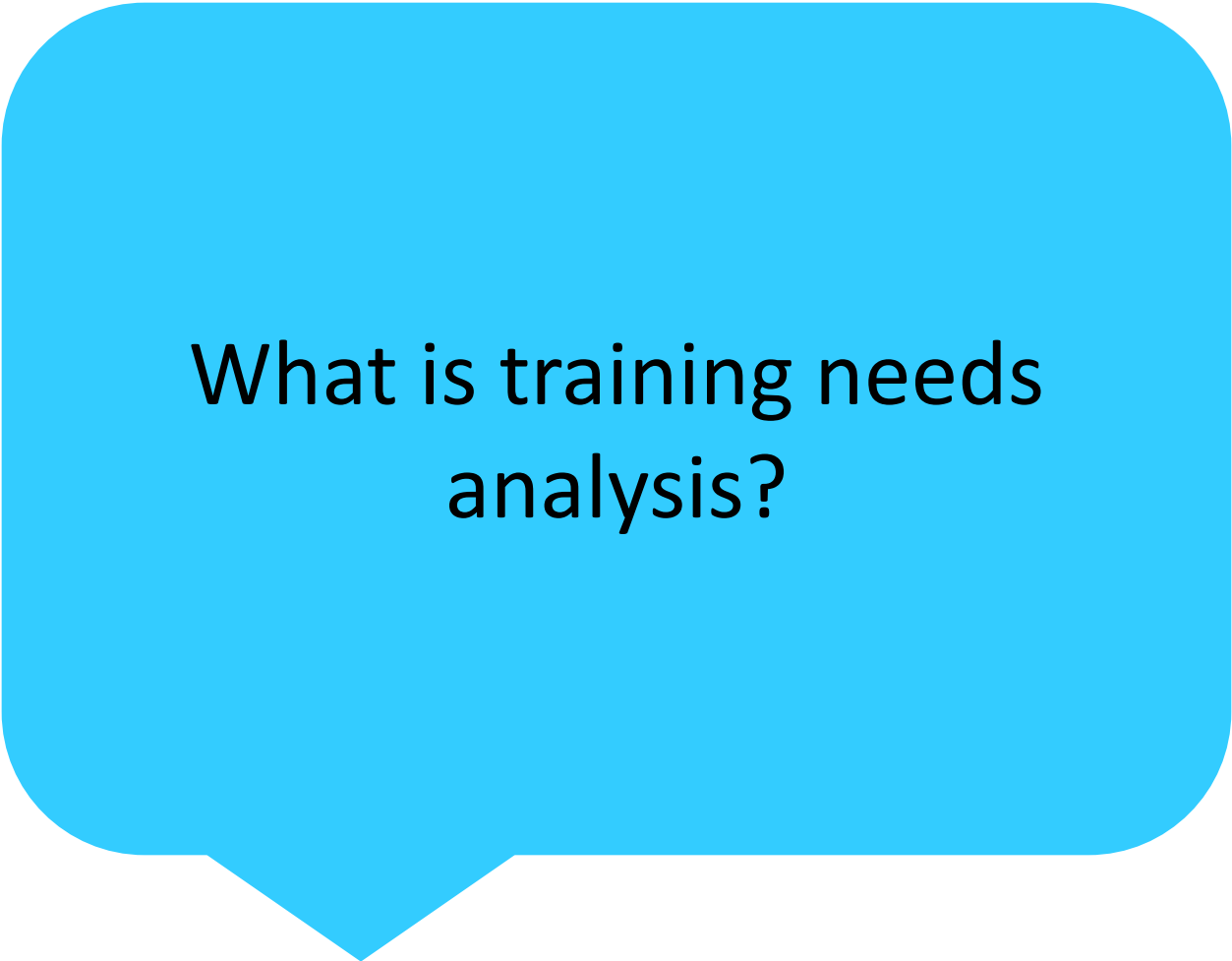
What is training?

- Steps of developing a training program
  1. Conduct a needs analysis
  2. Identify objectives and evaluation criteria
  3. Design and deliver training
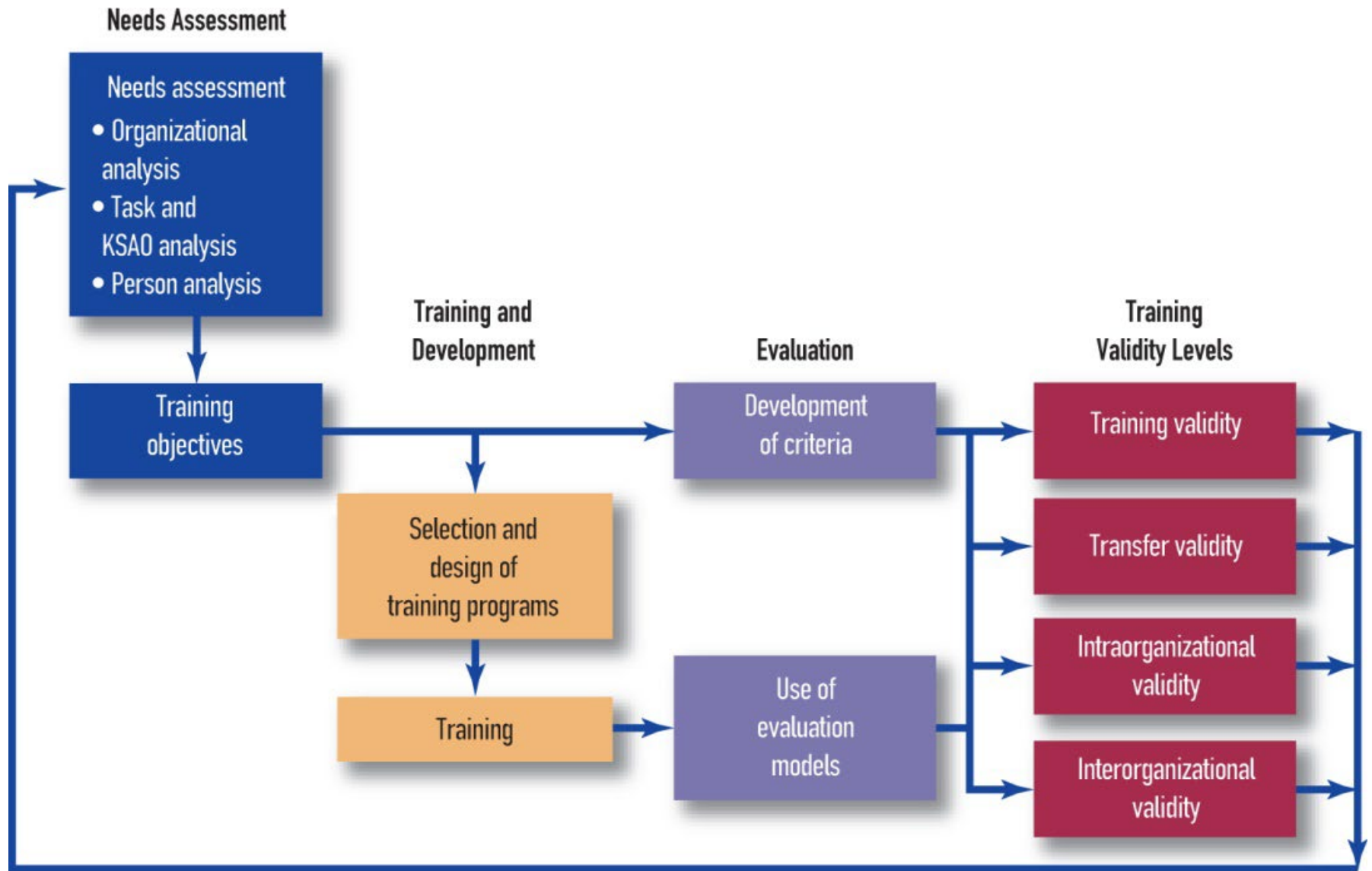 4. Evaluate training and make necessary changes

What is development?

- **Development:** Formal education, job experiences, mentoring relationships, and assessments of personality and abilities that help employees prepare for the future

Needs Assessment

Needs assessment
- Organizational analysis
- Task and KSAO analysis
- Person analysis

↓

Training objectives

Training and Development

Selection and design of training programs

↓

Training

Evaluation

Development of criteria

Use of evaluation models

Training Validity Levels

Training validity

Transfer validity

Intraorganizational validity

Interorganizational validity

What is training needs analysis?

- **Training needs analysis:** A 3-step process required to develop a systematic understanding of where training is needed (*organizational*), what needs to be trained (*task*), and who will be trained (*person*)

Person Analysis

Task Analysis

Organizational Analysis

What is organizational analysis?

- **Organizational analysis:** Examines the organization's goals, resources, and environment to determine where training should be directed

- Assesses the needs of departments, managers, and peers as well as technological support

- Considers the organization's culture and climate

- Aligns training with the organization's strategy and HR functions

What is task analysis?

- **Task analysis:** Examines what employees must do to perform job properly through job analysis
- Establishes a link between tasks and KSAOs
  - Develop task statements
  - Determine homogeneous task clusters
  - Identify the KSAOs required for each cluster

What is person analysis?

- **Person analysis:** Examines which individuals should receive training and what kind of training they need

- Relies on objective performance data and assessments of KSAOs, personality, and experience
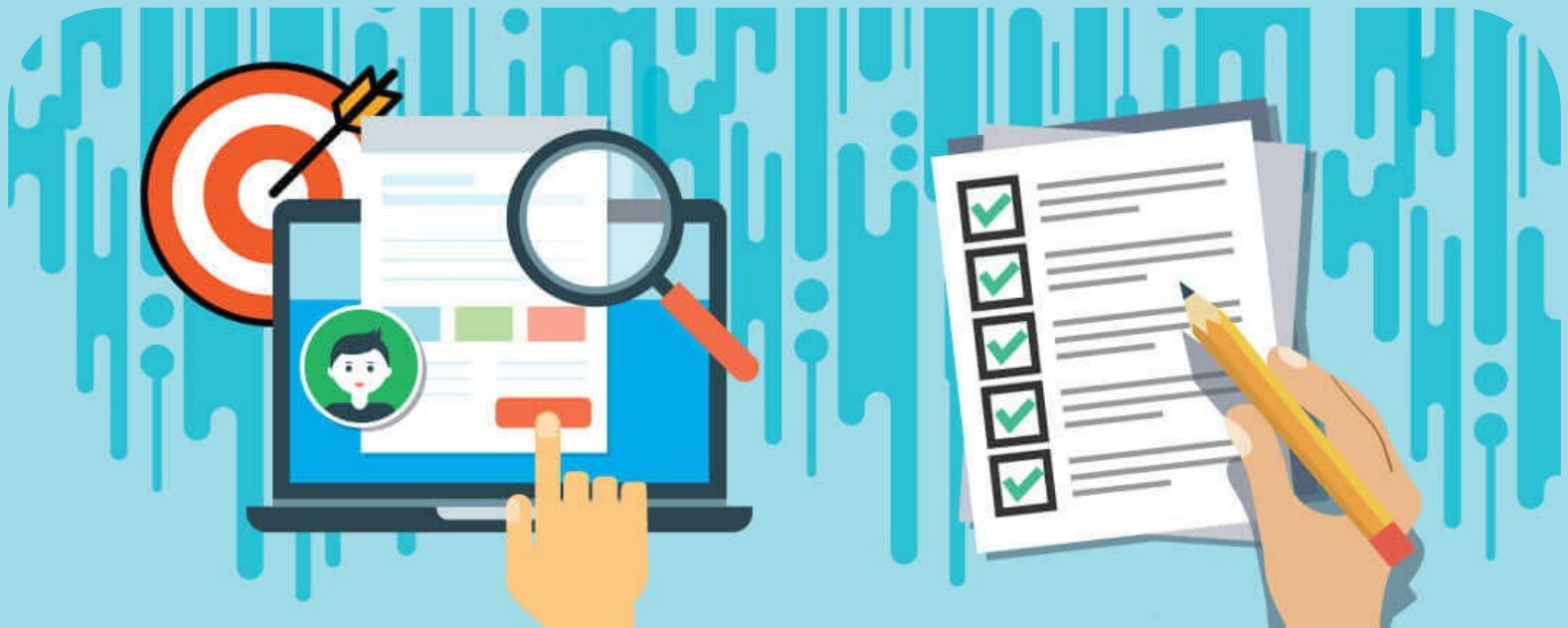
What is learning? What impacts learning? How do we learn? How do we practice?
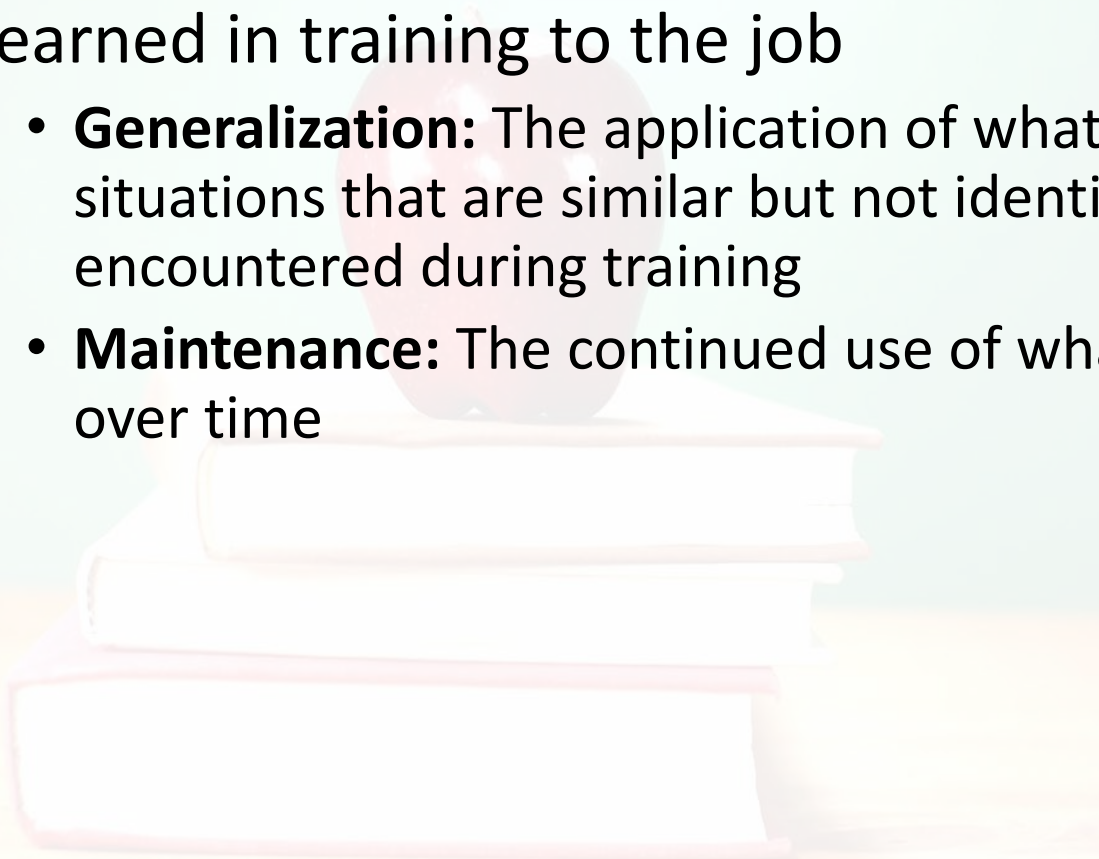
What is learning?

- **Learning:** A relatively permanent change in KSAOs and behavior produced by experience and practice
    - Using rehearsal, learning occurs through repetition.
    - Organizing involves finding similarities and themes across training content.
    - To elaborate means relating the material to other more familiar knowledge.
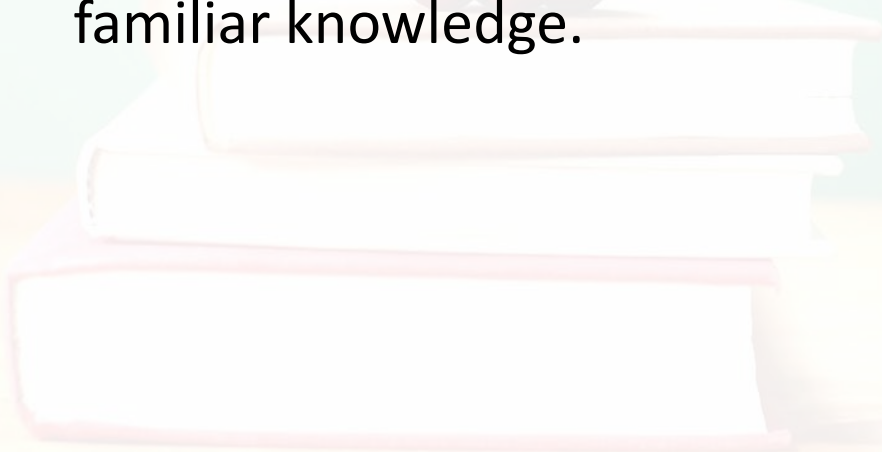
What is learning?

- **Transfer of training:** The application of what was learned in training to the job
  - **Generalization:** The application of what was learned to situations that are similar but not identical to those encountered during training
  - **Maintenance:** The continued use of what was learned over time

What impacts learning?

- **Trainee readiness:** The extent to which trainees can learn from a training program and apply it to the job
  - Goal orientation
    - **Performance orientation:** Concerned about doing well in training and being evaluated positively
    - **Mastery orientation:** Concerned about increasing competence and learning from errors

What impacts learning?

- **Trainee readiness:** The extent to which trainees can learn from a training program and apply it to the job
  - Intelligence and experience level
    - Inexperienced, low "g" trainees benefit from longer, more structured training
    - Experienced, high "g" trainees benefit from shorter, less structured training

What impacts learning?

- **Trainee motivation:** The extent to which trainees are interested in attending training, learning from it, and applying it to their job
    - **Expectancy framework:** Suggests motivation is affected by trainees' expectations about their effort, performance, and outcomes

How do we learn?

- **Reinforcement theory:** Suggests learning occurs when behaviors are associated with rewards
  - **Positive reinforcement:** Following a desired behavior with a reward
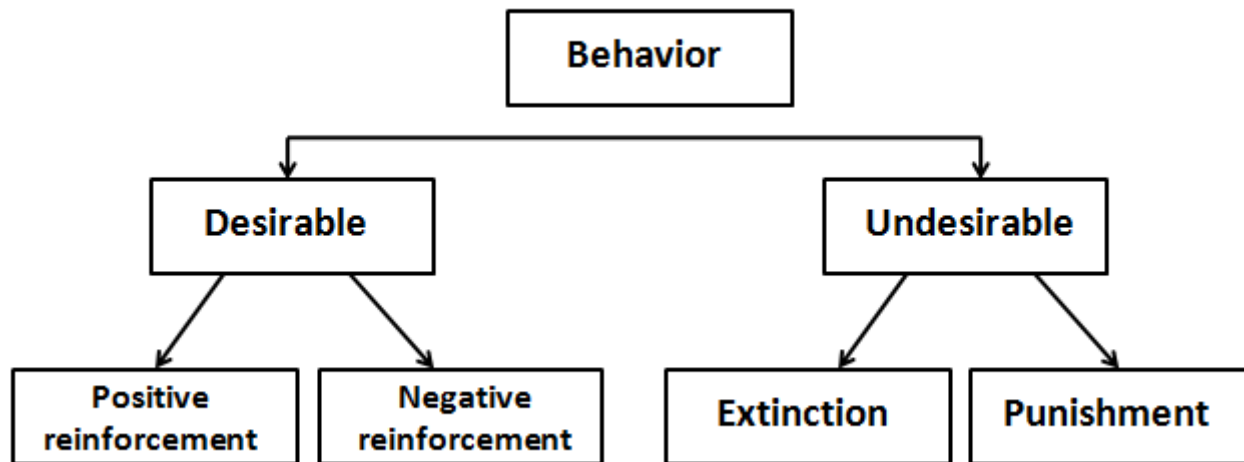
How do we learn?

- **Social learning theory:** Suggests learning occurs in social situations

**Observational learning:** Trainees learn by observing others performing a task

Self-efficacy: Trainees learn when they believe in their capability to perform

Goal setting: Trainees learn by establishing goals that direct attention

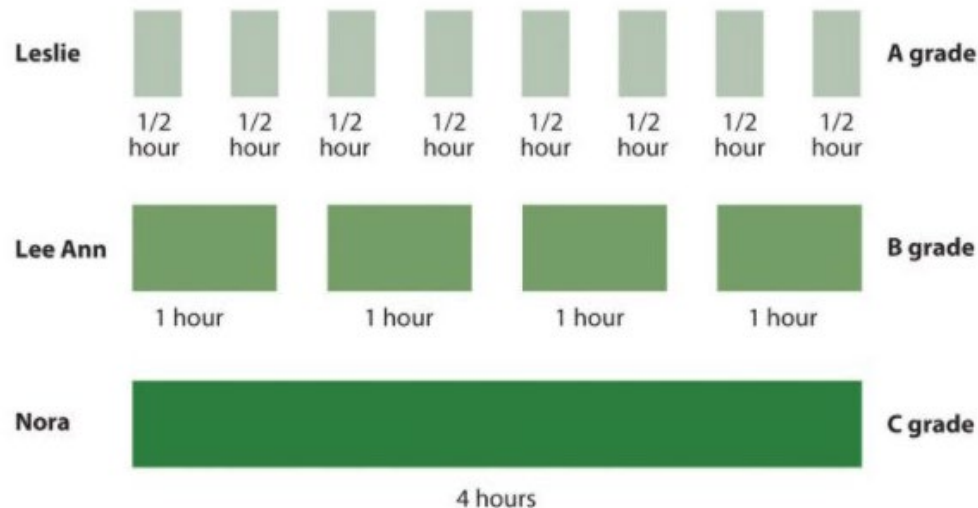**Feedback:** Trainees learn from the results of their actions

How do we practice?

- **Fidelity:** The extent to which the training task is similar to the job task

    - **Physical fidelity:** The extent to which the training task mirrors the physical features of the job task

    - **Psychological fidelity:** The extent to which the training task helps trainees develop the KSAOs needed to succeed on the job
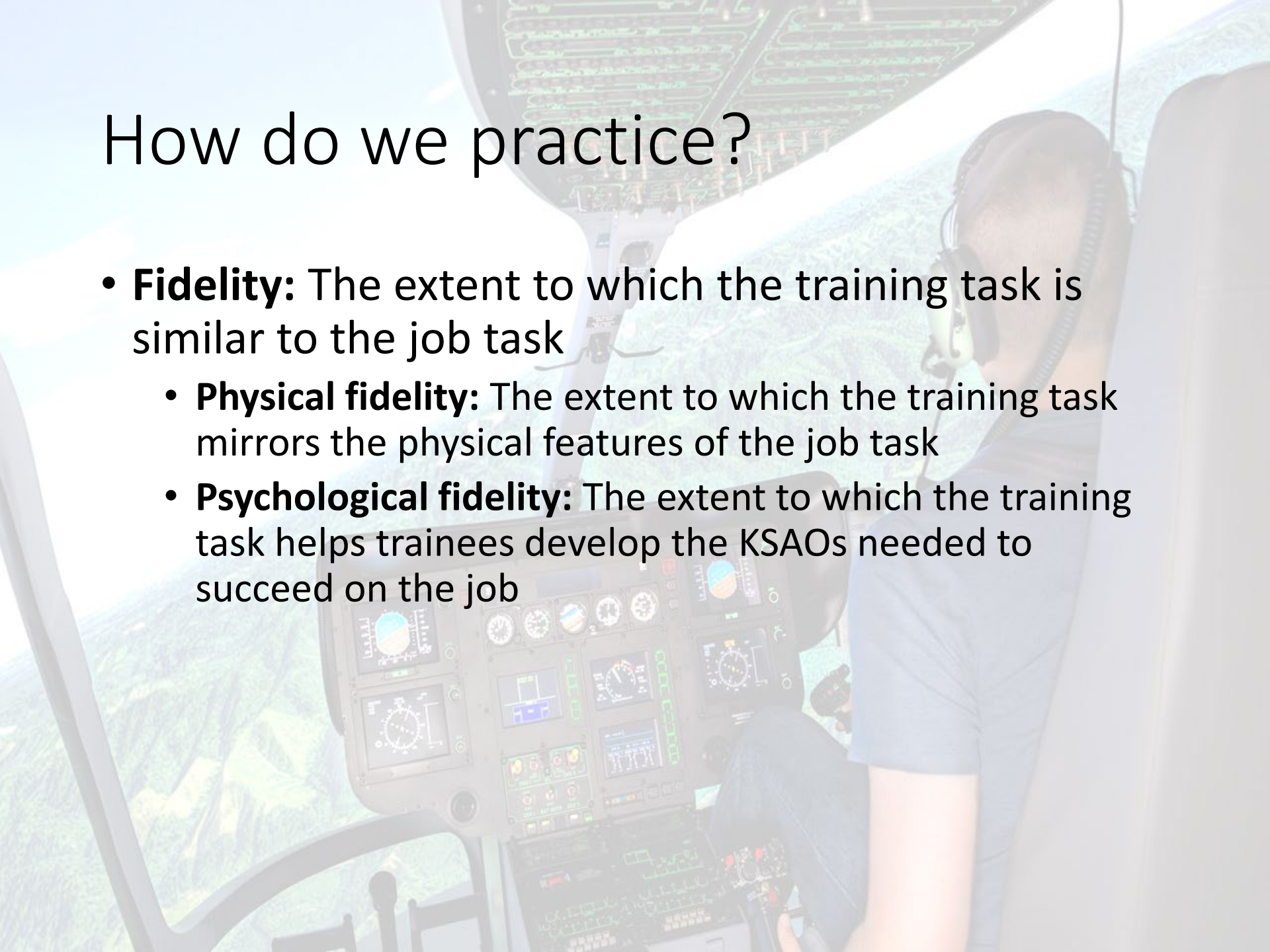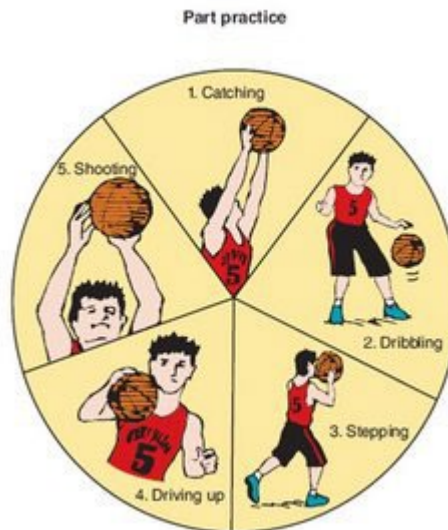
How do we practice?

- **Massed practice:** When the task is practiced in one session without rest

- **Distributed practice:** When the task is practiced over multiple sessions with breaks

| Leslie | 1/2 hour | 1/2 hour | 1/2 hour | 1/2 hour | 1/2 hour | 1/2 hour | 1/2 hour | 1/2 hour | A grade |

| Lee Ann | 1 hour | 1 hour | 1 hour | 1 hour | B grade |

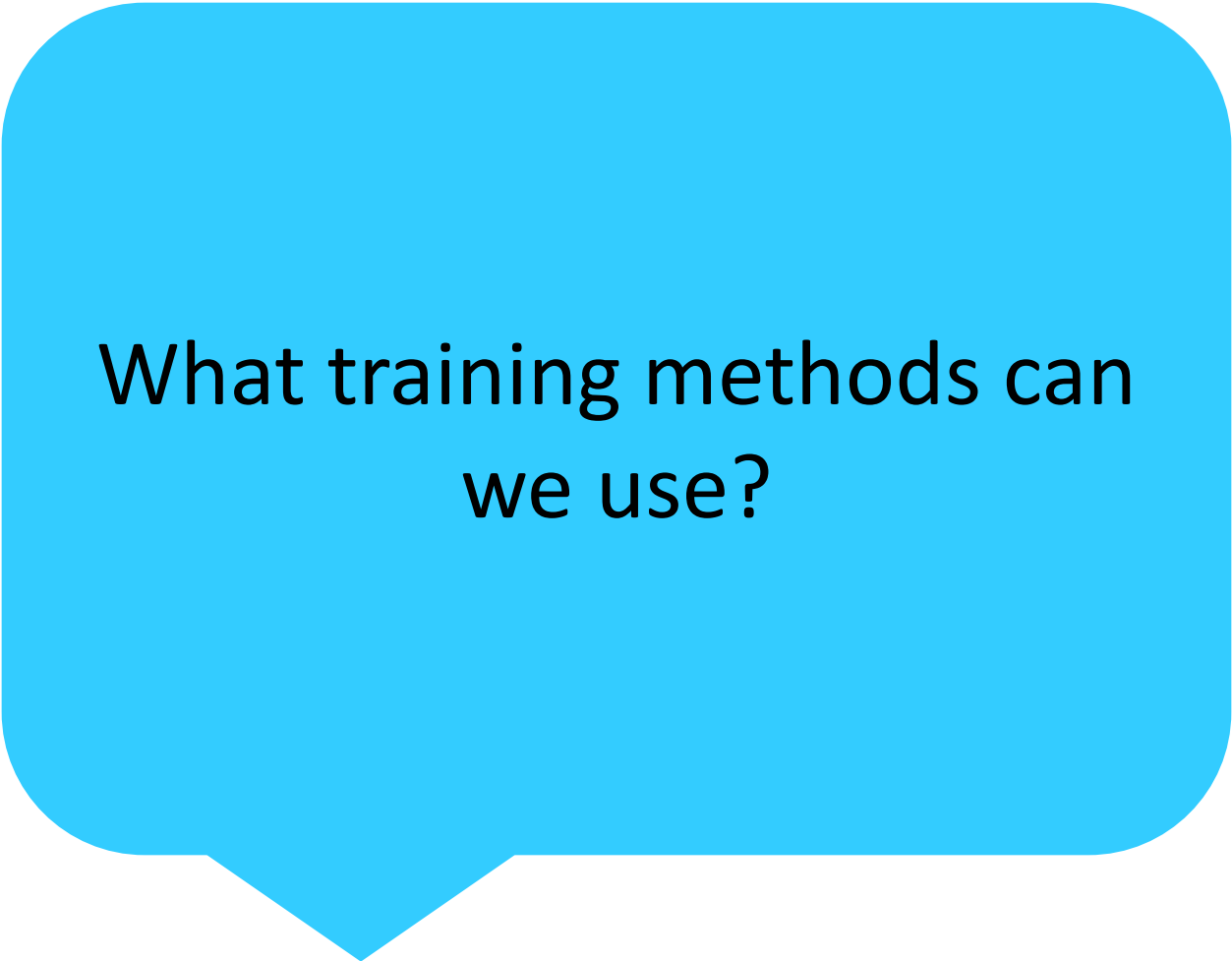| Nora | 4 hours | C grade |

How do we practice?

- **Whole learning:** When the entire task is practiced at once

- **Part learning:** When subtasks are practiced separately and later combined

How do we practice?

- **Overlearning:** The continuous practice of new skills even after demonstrating proficiency

- **Automaticity:** Occurs when tasks can be performed with limited attention
    - Developed by presenting learning opportunities even after mastery is demonstrated

What training methods can we use?

- **Classroom lecture:** Presents information through spoken words and audiovisual materials

- Variations include team teaching, guest speakers, panels, and student presentations
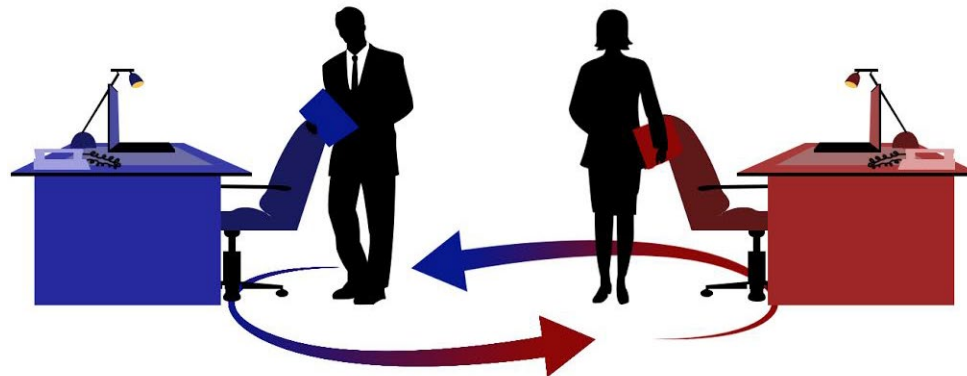
What training methods can we use?

- **On-the-job training:** Enables trainees to observe and learn from more experienced employees

- **Apprenticeship:** Formal training program used to teach a skilled trade
  - Skills may NOT be transferable

What training methods can we use?

- **Case study:** The process of analyzing and critiquing the company or employees and making recommendations

- **Role plays:** Require trainees to assume a role and explore what is involved in it

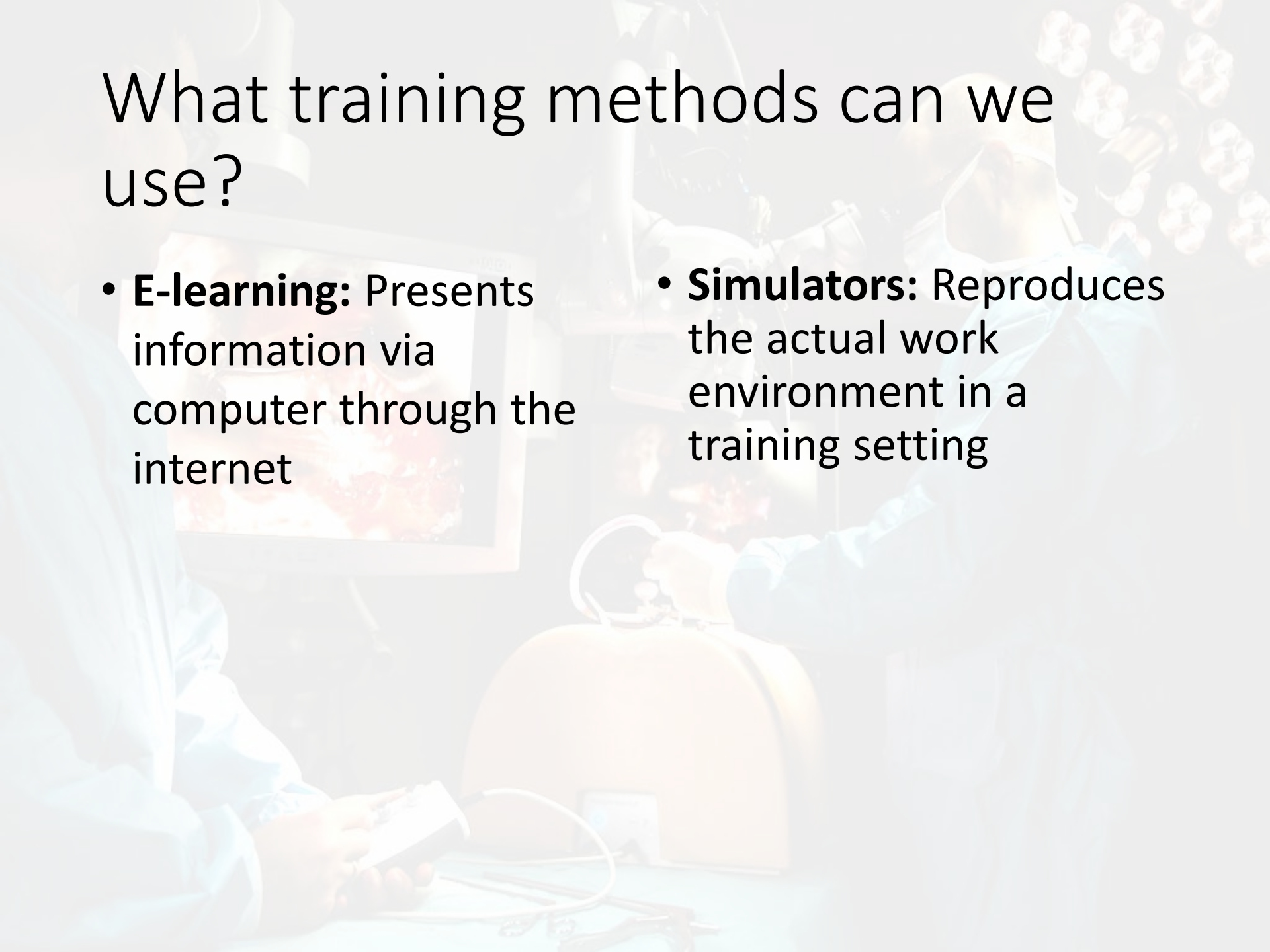# What training methods can we use?

- **Adventure learning:** Uses structured group activities that take place off-site

- **Team training:** The coordination of members' KSAOs and behaviors to achieve a shared goal

What training methods can we use?

- **E-learning:** Presents information via computer through the internet

- **Simulators:** Reproduces the actual work environment in a training setting

What training methods can we use?

- **Augmented reality (AR):** Brings digital elements into the physical world

- **Virtual reality:** Total immersion in an artificial environment

What training methods can we use?

- **Distance learning:** Allows trainees to learn from a distant location

- **Blended learning:** Combines face-to-face learning with distance learning

How do we evaluate training programs?

- **Training effectiveness:** The benefits of training

- **Training evaluation:** A systematic collection of information that can be used to make decisions

- **Training outcomes:** The criteria and corresponding measures used to evaluate training effectiveness

- **Evaluation design:** How, when, what, and from whom training data is collected

How do we evaluate training programs?

- The evaluation of a training program can:
    - Gauge strengths and weaknesses.
    - Evaluate the impact of design elements.
    - Determine who benefitted and why.
    - Collect information for marketing purposes.
    - Identify the program's ROI.

EVALUATION

Relevance
Efficiency
Effectiveness
Sustainability
Impact

MONITORING

How do we evaluate training programs?

How do we evaluate training programs?

- **Internal criteria:** Assesses trainees' reactions to and learning in the training program
  - **Reaction criteria:** Measure of trainees' perceptions of and satisfaction with the training program
    - **Net promoter scores (NPS)** reflect the likelihood that trainees will recommend the program to their colleagues.
  - **Learning criteria:** Measure of trainees' learning
    - Cognitive, skill-based, and affective outcomes

How do we evaluate training programs?

- **External criteria:** Assesses whether training impacts trainees' behaviors on the job
    - **Transfer criteria:** Measure of how well the behaviors learned in training transfer to the job
    - **Results criteria:** Measure of how well training can be related to organizational outcomes
    - **Return-on-investment (ROI):** Measure of the return or gain on the investment in a program

How do we evaluate training programs?

- Various designs provide evidence of training effectiveness
    - Random assignment of participants to conditions
    - Control group
    - Measures obtained before and after training

How do we evaluate training programs?

- **Post-test-only design:** Involves a single measurement of outcomes at the end of training

- **Pre-test/post-test design:** Compares trainees' scores from before and after training

- **Post-test-only with comparison group design:** Compares the training group's scores after training with the comparison group's scores *without* training

How do we evaluate training programs?

- **Pre-test/post-test with comparison group design:** Compares the training group and the comparison group once before training and once after the training group completes training

- **Solomon four-group design:** Combines post-test-only with comparison group and pre-test/post-test with comparison group

- **Time series design:** Compares trainees' scores on pre-tests and post-tests before and after training