Advanced Industrial Psychology Industrial Training

Instructional Techniques

What We Will Cover in This Section

- Criteria for adequate training technique.
- Information presentation techniques.
- Simulation techniques.
- Job experience techniques.

Criteria for Assessing Training (1)

1. Does it provide for the learner's active participation?
   - Cognitive
   - Physical

2. Does it provide for knowledge of results?

Criteria for Assessing Training (2)

3. Does it integrate KSACs being acquired with the job?

4. Is reinforcement built in?
   - During acquisition.
   - On-the-job.

Criteria for Assessing Training (3)

5. Does the training provide for practice or rehearsal.
   - Types.
     - Rehearsal time.
     - Practice time.
   - Outcome-Oriented Practice.
     - What would the person do?
     - Under what conditions?
     - How know if effective?
     - How diagnose mistakes?
     - How fix mistakes?

Criteria for Assessing Training (4)

6. What motivational techniques are used to influence
   - Acquisition
   - Retention
   - Transfer
7. What *JOB AIDS* are provided?
8. Is the training evaluated?

Information Presentation Techniques

Techniques that focus primarily on providing the learner with data, facts, and figures (knowledge) to be acquired and applied to the job.

Lecture

Presenting information to learners through verbal techniques enhanced by visual materials.

Lecture Techniques

1. Delivery

2. Reinforcement

3. Rehearsal

4. Interaction

Lecture: Benefits & Issues

- Benefits.
  - Everyone is familiar with it.
  - Direct face-to-face interaction.
  - Flexible.
- Issues.
  - One-way.
  - Learners are passive.

Programmed Instruction (PI)

Technique that presents material to the learner then provides for frequent self-assessment and feedback.

Programmed Instruction (PI)

- Techniques
  - Texts
  - Computer programs
  - On-line programs

PI Methods (1)

LINEAR PROGRAMMING

Each successive step of the material to be learned is reinforced.

1. Presented one small unit at a time.
2. Each unit requires a constructed response.
3. The learner gets immediate feedback.
4. Usually go from simple to complex concepts.
5. Each person works independently.

PI Methods (2)

BRANCHING PROGRAMMING

The program branches into new areas depending on the learner's response.

PI Benefits

1. Faster than straight lecture.
2. Better retention than lecture.
3. Follows basic steps for good learning.
4. Easy to distribute.
5. Self-reinforcement.
6. Individual learning speed.

PI Issues

1. Difficult to develop.
2. Cannot anticipate all possible errors.
3. How big should the steps be.
4. Cannot address skill acquisition.
5. Transfer…similarity.
6. Better when coupled with another technique.

Audio/Visual (AV)

Visual and auditory presentation of information using active video.

AV Uses

1. Modeling.
   - Interpersonal skills.
   - Mechanical activities.

2. Catalyst for discussion.

AV Advantages

1. Effective in presenting visual material.
2. Replace less competent presenters.
3. Substitute for few presenters.
4. Demonstrate complicated activities that take place over time.
5. Demonstrate unsafe activities.

AV Issues

1. Expensive and time consuming to produce.

2. Presentation is fixed, not flexible.

3. Best used to supplement other techniques.

Other Information Presentation Techniques

- Conference.

- Correspondence course.

- Reading list.

- Systematic observation.

Simulation Techniques

Off site technique in which
an essential characteristic of
the job is reproduced.

Criteria for Effective Skill-oriented Techniques

1. Motivate the trainee.
2. Clearly illustrate the desired skill.
3. Practice.
4. Feedback.
5. Trainee reinforcement.
6. Structured from simple to complex.
7. Focus on transfer.

Key Characteristic: Fidelity

PHYSICAL FIDELITY

The extent to which the simulation duplicates the physical characteristics of the job.

PSYCHOLOGICAL FIDELITY

The extent to which the simulation elicits the KSACs that would be found on the job.

Fidelity & Transfer

1. Task commonality.

2. Equipment similarity.

3. Learner need (skill gap).

4. Training techniques.

Benefits & Issues

- Benefits
  - Reproducibility.
  - Safety.
  - Effective acquisition.

- Issues
  - Cost
  - Trainer competence.

Types of Simulator

- Vestibule training.
  - Simulated work space where training takes place.

- Simulator.
  - Training that replicates job conditions without placing the person in actual work setting.

Business Game

Simulated business environment in which participants run a business, make decisions, and see the impact of these decisions in the training environment.

Assessment Center

A series of standardized, independent job simulations which are used to identify individual strengths and weaknesses.

Assessment Center Exercises

- Interview simulation.

- In basket.

- Leaderless group discussion.

- Analysis and presentation.

Other Simulation Techniques

- Role playing.

- Behavior modeling.

Job Experience Techniques

Techniques in which the
person is placed on the job
to learn KSACs required for
success.

On The Job Training(OJT)

Technique where learners acquire
job-related skills by observing
others on the job and modeling
their behavior.

OJT Requirements

1. Should be well planned.
2. Should be a competent trainer/mentor.
3. Steps
   a. Get organizational support.
   b. Identify objectives.
   c. Have clear schedule.
   d. Have a clear training guide.
   e. Have formal assessment.

OJT Benefits and Issues

- Benefits.
  - Good transfer.
  - Productivity.
  - High motivation.
  - Relatively inexpensive.

- Issues.
  - Safety.
  - Poor trainers.
  - Slow acquisition.

Vestibule Training

Technique where learners acquire job-related skills in a simulated work site.

Vestibule Training Benefits & Issues

- Benefits.
  - High degree of transfer.
  - Safe.
  - Few distractions.
  - High degree of fidelity.
- Issues.
  - Expensive.
  - Time consuming.

Embedded Training

Instruction is designed as an integral part of the equipment.

Embedded Training: Benefits & Issues

- Benefits
  - Good transfer.
  - OK acquisition.
  - Self-paced.
- Issues
  - How to do complex skills.
  - Expensive to produce.
  - How to anticipate all problems.

Other Job Experience Techniques

- Job Rotation
- Understudy
- Internship
- On-the-job coaching