**Chapter Four**

**Learning and Transfer of Training**

**OBJECTIVES**

1. Discuss the five types of learner outcomes.

2. Explain the implications of learning theory for instructional design.

3. Incorporate adult learning theory into the design of a training program.

4. Describe how learners receive, process, store, retrieve, and act upon information.

5. Discuss the internal conditions (within the learner) and external conditions (learning environment) necessary for the trainee to learn each type of capability.

6. Discuss the implications of open and closed skills and near and far transfer for designing training programs.

7. Explain the features of instruction and the work environment that are necessary for learning and transfer of training.

**MULTIPLE CHOICE**

4.1. Which of the following statements is true of training?

1. Recognizing employees’ preferences regarding how they want to learn is not advisable.
2. It is important to realize that for training to be effective, both learning and transfer of training are needed.
3. Transfer of training is to be considered only after the completion of training.
4. Transfer of training involves having employees who already have mastered the learning outcomes demonstrate them for trainees.

Answer: b

Difficulty: medium

Learning objective:

4.2. Which of the following examples best reflects an attitude as a learning outcome?

1. State three reasons for following company safety procedures.
2. Design and code a computer program that meets customer requirements.
3. Gain a greater appreciation for work-life balance.
4. Shoot a gun and consistently hit a small moving target.

Answer: c

Difficulty: medium

Learning objective: 1

4.3. \_\_\_\_\_ relates to the learner’s decision regarding what information to attend to, how to remember, and how to solve problems.

1. Cognitive strategy
2. Motor skill
3. Attitude
4. Verbal information

Answer: a

Difficulty: easy

Learning objective: 1

4.4. Which learning outcomes relate to the ability to design and code a computer program that meets customer requirements?

1. Cognitive strategies
2. Attitudes
3. Intellectual skills
4. Motor skills

Answer: c

Difficulty: medium

Learning objective: 1

4.5. Intellectual skill as a learning outcome primarily includes the capability to \_\_\_\_\_.

1. state or describe previously stored information
2. apply generalizable concepts and rules to solve complex problems
3. execute a physical action with precision and timing
4. choose a personal course of action

Answer: b

Difficulty: medium

Learning objective: 1

4.6. Behavior modification is a training method that is primarily based on \_\_\_\_\_.

1. goal setting theory
2. information processing theory
3. expectancy theory
4. reinforcement theory

Answer: d

Difficulty: easy

Learning objective: 2

4.7. Behavior modeling is a training method that is primarily based on \_\_\_\_\_.

1. goal setting theory
2. social learning theory
3. expectancy theory
4. reinforcement theory

Answer: b

Difficulty: medium

Learning objective: 2

4.8. \_\_\_\_\_ is a person’s judgment about whether he or she can successfully learn new knowledge and skills.

1. Self-efficacy
2. Self-actualization
3. Self-esteem
4. Self-concept

Answer: a

Difficulty: easy

Learning objective: 2

4.9. Logical verification to increase self-efficacy typically involves \_\_\_\_\_.

1. perceiving a relationship between a new task and a task already mastered
2. trying out the observed behaviors to see if they result in the same reinforcement that a model received
3. motivating trainees by having employees who have mastered the learning outcomes demonstrate them
4. determining the degree of support for using newly acquired capabilities

Answer: a

Difficulty: medium

Learning objective: 2

4.10. Juan, an operations manager has been assigned to train a group of older employees in the logistics department. He has to train them to use new computer software. He begins by reminding them that they were quick in learning the old software. Juan is trying to \_\_\_\_\_.

1. increase the employees’ self-efficacy
2. deter expectancies of the employees
3. create motor reproduction
4. raise the valence of the behavior

Answer: a

Difficulty: hard

Learning objective: 2

4.11. Which of the following creates a learning orientation in trainees?

1. Emphasizing trained task performance
2. Emphasizing competition among trainees
3. Ensuring trainees completely avoid errors and mistakes
4. Allowing trainees to experiment with new knowledge and skills

Answer: d

Difficulty: medium

Learning objective: 2

4.12. In expectancy theory, the belief that performing a given behavior is associated with a particular outcome is called \_\_\_\_\_.

1. valence
2. instrumentality
3. maintenance
4. generalizing

Answer: b

Difficulty: medium

Learning objective: 2

4.13. In the context of expectancy theory, \_\_\_\_\_ relates to trainees’ beliefs that they perform the trained skill.

1. expectancy
2. instrumentality
3. self-efficacy
4. valance

Answer: a

Difficulty: easy

Learning objective: 2

4.14. According to the \_\_\_\_\_, transfer will be maximized when the tasks, materials, equipment, and other characteristics of the learning environment are similar to those encountered in the work environment.

1. theory of identical elements
2. stimulus generalization approach
3. cognitive theory of transfer
4. information processing theory

Answer: a

Difficulty: easy

Learning objective: 6

4.15. Which of the following statements is true of closed skills?

1. They require the trainee to adapt the general principles to fit a wide range of circumstances.
2. They refer to training objectives that are linked to general learning principles.
3. They refer to skills that are to be identically produced by the trainee on the job.
4. They are more difficult to train than open skills.

Answer: c

Difficulty: medium

Learning objective: 6

4.16. \_\_\_\_\_ is a learning process that involves identifying learned material in long-term memory and using it to influence performance.

* 1. Generalizing
  2. Semantic encoding
  3. Retrieval
  4. Gratifying

Answer: c

Difficulty: easy

Learning objective: 4

4.17. In the learning processes, semantic encoding typically involves \_\_\_\_\_.

* 1. informing learners of the lesson objective
  2. providing learning guidance to individuals
  3. providing learners cues that are used in recall
  4. providing feedback about performance correctness

Answer: b

Difficulty: medium

Learning objective: 4

4.18. Which of the following statements is true of organizing as a learning strategy?

1. It focuses on memorization of training content.
2. It focuses on learning through repetition of training content.
3. It requires the learner to find similarities and themes in the training material.
4. It requires the trainee to relate the training material to other, more familiar knowledge, skills, or behaviors.

Answer: c

Difficulty: medium

Learning objective: 4

4.19. The learning cycle for a trainee begins with a(n) \_\_\_\_\_.

1. reflective observation
2. concrete experience
3. abstract conceptualization
4. active experimentation

Answer: b

Difficulty: easy

Learning objective: 4

4.20. Good decisiveness, practical application of ideas, and hypothetical deductive reasoning are characteristics of individuals with a \_\_\_\_\_ learning style.

1. converger
2. diverger
3. assimilator
4. accommodator

Answer: a

Difficulty: easy

Learning objective: 4

4.21. \_\_\_\_\_ use concrete experience and reflective observation and are good at generating ideas and seeing a situation from multiple perspectives.

1. Divergers
2. Assimilators
3. Convergers
4. Accommodators

Answer: a

Difficulty: medium

Learning objective: 4

4.22. \_\_\_\_\_ refers to individual control over one’s thinking.

1. Modeling
2. Instrumentality
3. Valence
4. Metacognition

Answer: d

Difficulty: easy

Learning objective: 4

4.23. \_\_\_\_\_ refers to the learner’s involvement with the training material and assessing their progress toward learning.

1. Automatization
2. Self-regulation
3. Elaboration
4. Generalization

Answer: b

Difficulty: easy

Learning objective: 4

4.24. Learner-learner interaction is most appropriate when learners have to \_\_\_\_\_.

1. master a task that is completed alone
2. maximize their critical thinking and analysis skills
3. acquire personal knowledge based on experience
4. enhance their self-awareness and self-assessment

Answer: c

Difficulty: medium

Learning objective: 7

4.25. \_\_\_\_\_ refers to practicing a task continuously without breaks.

1. Overlearning
2. Whole practice
3. Massed practice
4. Continuous learning

Answer: c

Difficulty: medium

Learning objective: 7

4.26. Which of the following is a disadvantage of communities of practice (COPs)?

1. Employees are reluctant to participate without an incentive and fear sharing their knowledge with others.
2. They are not naturally occurring in companies; hence, they have to be forced.
3. Social interaction is discouraged; hence, learning occurs off the job.
4. They make it tedious for employees to share best practices, learn from one another, and improve business processes.

Answer: a

Difficulty: medium

Learning objective: 7

4.27. Which of the following is an example of the internal conditions necessary for learning?

* 1. Providing trainees opportunities to practice new skills
  2. Strong messages provided to trainees from credible sources
  3. Verbal persuasion
  4. Recall of training content

Answer: d

Difficulty: easy

Learning objective: 5

**TRUE/FALSE**

4.28. Developing a computer program that meets customer specifications is an example of an intellectual skills learning outcome.

Answer: true

Difficulty: medium

Learning objective: 1

4.29. Adult learning theory assumes that adults enter a learning experience with a subject-centered approach to learning.

Answer: false

Difficulty: medium

Learning objective: 3

4.30. Individuals with a learning orientation find that errors and mistakes cause anxiety.

Answer: false

Difficulty: medium

Learning objective: 2

4.31. In general, it is best to promote a performance orientation among trainees.

Answer: false

Difficulty: medium

Learning objective: 2

4.32. Instrumentality is similar to self-efficacy.

Answer: false

Difficulty: medium

Learning objective: 2

4.33. Most educational theories historically have been developed exclusively to educate children.

Answer: true

Difficulty: easy

Learning objective: 2

4.34. In the context of adult learning theory (andragogy), group discussions would likely be less appropriate than the traditional lecture method.

Answer: false

Difficulty: medium

Learning objective: 3

4.35. Open skills are those that are to be identically produced by the trainee on the job.

Answer: false

Difficulty: easy

Learning objective: 6

4.36. Closed skills are highly influenced by managers, peers, and the work environment.

Answer: false

Difficulty: medium

Learning objective: 6

4.37. Identical elements are more appropriate for open skills as opposed to closed skills.

Answer: false

Difficulty: medium

Learning objective: 6

4.38. The stimulus generalization approach is more appropriate for open skills as opposed to closed skills.

Answer: true

Difficulty: medium

Learning objective: 6

4.39. Identical elements are maximized when the learning environment matches the trainee as closely as possible.

Answer: false

Difficulty: easy

Learning objective: 6

4.40. The stimulus generalization approach emphasizes near transfer of training.

Answer: false

Difficulty: medium

Learning objective: 6

4.41. The working storage and semantic encoding processes of learning both relate to short-term memory.

Answer: true

Difficulty: medium

Learning objective: 4

4.42. It is best to include a combination of examples and practice, rather than all practice.

Answer: true

Difficulty: easy

Learning objective: 7

4.43. In error management training, trainees are instructed that errors hamper learning and should largely be avoided.

Answer: false

Difficulty: medium

Learning objective: 7

4.44. For more complex tasks, relatively long rest periods appear to be beneficial for learning.

Answer: true

Difficulty: easy

Learning objective: 7

4.45. Automatization of tasks increases memory demands.

Answer: false

Difficulty: easy

Learning objective: 7

4.46. Providing self-management training is an example of an internal learning condition.

Answer: false

Difficulty: easy

Learning objective: 5

**SHORT ANSWER-ESSAY**

4.47. Describe how trainers can create a learning orientation among trainees in contrast to a performance orientation. (Be sure to define learning orientation and performance orientation in your answer to demonstrate your understanding of these concepts.)

People with a learning orientation view mistakes as a useful part of the learning processes and not as something that should be avoided. They are focused on learning and not necessarily looking good. Performance orientation refers to a desire to look good in comparison to others. Individuals with a performance orientation value ability more than learning, and they avoid mistakes as they might make them appear “foolish” in the eyes of others.

Accordingly, trainers should strive to promote a learning orientation among trainees. Trainers should set goals around learning and experimenting with new ways of having trainees perform trained tasks. They should also deemphasize competition among trainees, create a community of learning, and allow trainees to make errors. When trainees make mistakes, trainers should provide constructive feedback and avoid making trainees look incompetent.

Difficulty: medium/hard

Learning objective: 2

4.48. Describe what are meant by self-efficacy beliefs and how they can be enhanced in a training context.

Self-efficacy relates to an individual’s belief that he/she can successfully learn new knowledge and skills. Self-efficacy can be increased several ways:

* verbal persuasion: offering words of encouragement to convince individuals they are capable of learning
* logical verification: creating a perceived relationship between a new task and a task already mastered
* modeling: showing individuals how to successfully perform a task
* past accomplishment: letting trainees build a history of successful accomplishments

Difficulty: medium

Learning objective: 2

4.49. Describe the three components of expectancy theory and how they can be enhanced in a training context.

Expectancy theory suggests that behavior is based on three factors—expectancy, instrumentality, and valence. Expectancy beliefs relate to whether an individual believes he or she can perform a specific behavior. These beliefs are related to self-efficacy. Valence is the value that individuals placed on an outcome or reward. Instrumentality relates to beliefs whether performing will result in a particular outcome. Will individuals receive something valued if they perform well?

Based on this model, trainers should: 1) ensure that trainees are confident in their ability to learn and perform (expectancy); 2) provide and communicate valued rewards (valence); and 3) ensure that valued rewards are receive if trainees successfully learn and transfer (instrumentality).

Difficulty: medium/hard

Learning objective: 2

4.50. Describe the principles of adult learning theory (andragogy) and their implications for training design and delivery.

Adult learning theory, also called andragogy, is a theory of how adults learn. The theory is based on the following assumptions:

* Adults have the need to know why they are learning something.
* Adults have a need to be self-directed.
* Adults bring more work-related experiences into the learning situation.
* Adults enter into a learning experience with a problem-centered approach to learning.
* Adults are motivated to learn by both extrinsic and intrinsic motivation.

There are several implications for training based on this theory.

* Mutual planning and collaboration in instruction.
* Use learner experiences as a basis for examples and applications.
* Develop instruction based on learners’ interests and competencies.
* Provide opportunities for immediate application.
* Ensure training is problem centered vs. subject centered.

Difficulty: medium/hard

Learning objective: 2/3

4.51. What is near transfer? Far transfer? What are their implications for training design?

Near transfer refers to trainees’ ability to apply learned capabilities exactly to the work situation. Near transfer is more likely to occur when the trainee works on tasks during training that are very similar, if not identical, to the work environment. Thus, trainers should incorporate identical elements, where the training environment is as close as possible to the real work environment.

Far transfer refers to trainees applying what they have learned to a work environment that is not identical to the training situation. The stimulus generalization approach emphasizes far transfer. The stimulus generalization approach suggests that the best way to promote transfer is to teach general principles that are applicable to many work situations.

Difficulty: medium

Learning objective: 6

4.52. Name and describe the three ways employees can learn through interaction.

Employees learn best through interaction with training content, with other learners, and with the trainer or instructor.

Learner-content interaction means that the learner interacts with the training content. Learner-content interaction includes reading text on the web or in books, listening to multimedia modules, performing activities that require the manipulation of tools or objects, completing case studies and worksheets, or creating new content based on learned information.

Learner-learner interaction refers to interaction between learners. Learner-learner interaction, including observing and sharing experience with peers, may be especially useful for training interpersonal skills, acquiring personal knowledge based on experience, context-specific knowledge, and learning to cope with new situations.

Learner-instructor interaction refers to interaction between the learner and the expert. Trainers can facilitate learning by presenting, demonstrating, and reinforcing content. Also, trainers provide support, encouragement, and feedback. Learner-instructor discussions can be useful for helping learners understand content, enhance learners’ self-awareness and self-assessment, gain an appreciation for different opinions, and implement ideas on the job.

Difficulty: medium

Learning objective: 7