

CHAPTER 2

Foundations of Individual Behavior

LEARNING OBJECTIVES

After studying this chapter, students should be able to:

1. Contrast the two types of ability.
2. Define *intellectual ability* and demonstrate its relevance to OB.
3. Identify the key biographical characteristics and describe how they are relevant to OB.
4. Define *learning* and outline the principles of the three major theories of learning.
5. Define *shaping* and show how it can be used in OB.
6. Show how culture affects our understanding of intellectual abilities, biographical characteristics, and learning.

I. INTRODUCTION

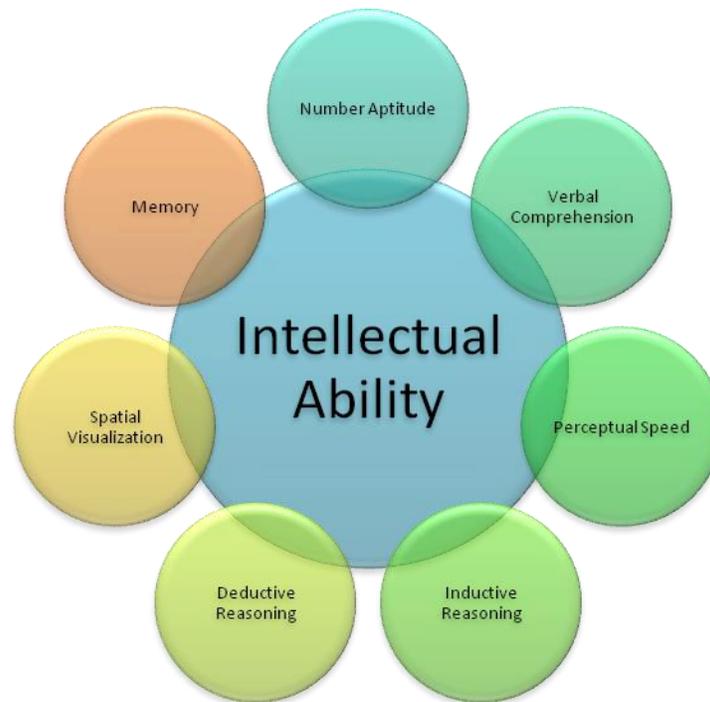
- The chapter looks at how biographical characteristics and ability affect employee performance and satisfaction.

II. ABILITY

A. Intellectual Abilities

- Intellectual abilities are those needed to perform mental activities.
- The seven most frequently cited dimensions making up intellectual abilities are: number aptitude, verbal comprehension, perceptual speed, inductive reasoning,

deductive reasoning, spatial visualization, and memory. (See Exhibit 2–1).



- A careful review of the evidence demonstrates that tests that assess verbal, numerical, spatial, and perceptual abilities are valid predictors of job proficiency at all levels of jobs.

B. Physical Abilities

- Specific physical abilities gain importance in doing less skilled and more standardized jobs.

C. The Ability-Job Fit

- Employee performance is enhanced when there is a high ability-job fit.
- The specific intellectual or physical abilities required depend on the ability requirements of the job. For example, pilots need strong spatial-visualization abilities.
- When the fit is poor, employees are likely to fail.

- When the ability-job fit is out of sync because the employee has abilities that far exceed the requirements of the job, performance is likely to be adequate but there will be organizational inefficiencies and possible declines in employee satisfaction.

III. BIOGRAPHICAL CHARACTERISTICS

- **Age:** Older workers bring experience, judgment, a strong work ethic, and commitment to quality.
- **Gender:** Few differences between men and women that affect job performance.
- **Tenure:** People with job tenure (seniority at a job) are more productive, absent less frequently, have lower turnover, and are more satisfied.

IV. LEARNING

A. *A Definition of Learning*

- What is learning? “any relatively permanent change in behavior that occurs as a result of experience.”
- The definition suggests that we shall never see someone “learning.” We can see changes taking place but not the learning itself.
- The definition has several components that deserve clarification:
 - First, learning involves change.
 - Second, the change must be relatively permanent.
 - Third, our definition is concerned with behavior.
 - Finally, some form of experience is necessary for learning.

C. **Theories of Learning**

1. *Classical Conditioning*

- Classical conditioning grew out of experiments conducted by Russian physiologist, Ivan Pavlov, to teach dogs to salivate in response to the ringing of a bell.
- Key concepts in classical conditioning [Pavlov’s experiment]

- The meat was an unconditioned stimulus; it invariably caused the dog to react in a specific way.
 - The bell was an artificial stimulus, or what we call the conditioned stimulus.
 - The conditioned response: This describes the behavior of the dog; it salivated in reaction to the bell alone.
 - Learning a conditioned response involves building up an association between a conditioned stimulus and an unconditioned stimulus.
 - When the stimuli, one **compelling** and the other one neutral, are paired, the neutral one becomes a conditioned stimulus and, hence, takes on the properties of the unconditioned stimulus.
2. **Operant Conditioning** *الشواب الشرطي*
- Operant conditioning **argues** that behavior is a function of its consequences. People learn to behave to get something they want or to avoid something they do not want.
 - The tendency to repeat such behavior is influenced by reinforcement or lack of reinforcement.
 - Harvard psychologist B.F. Skinner's research on operant conditioning expanded our knowledge.
 - Tenets of Operant Conditioning are:
 - Behavior is learned.
 - People are likely to engage in desired behaviors if they are positively reinforced for doing so.
 - Rewards are most effective if they immediately follow the desired response.
3. **Social Learning**
- Individuals can also learn by observing what happens to other people, by being told about something, as well as by direct experiences.
 - Learning by observing is an extension of operant conditioning; it also acknowledges the existence of observational learning and the importance of perception in learning.

- Four processes determine the influence that a model will have on an individual.
 - *Attentional processes.* People learn from a model only when they recognize and pay attention to its critical features.
 - *Retention processes.* A model's influence will depend on how well the individual remembers the model's action after the model is no longer readily available.
 - *reproduction processes.* After a person has seen a new behavior by observing the model, the watching must be converted to doing.
 - *Reinforcement processes.* Individuals will be motivated to exhibit the modeled behavior if positive incentives or rewards are provided.

D. Shaping: A Managerial Tool

1. Introduction

- When we attempt to mold individuals by guiding their learning in graduated steps, we are shaping behavior.
- It is done by systematically reinforcing each successive step that moves the individual closer to the desired response.

2. Methods of Shaping Behavior

- *Positive reinforcement*—following a response with something pleasant.
- *Negative reinforcement*—following a response by the termination or withdrawal of something unpleasant.
 - Both positive and negative reinforcement result in learning. They strengthen a response and increase the probability of repetition.
- *Punishment*—causing an unpleasant condition in an attempt to eliminate an undesirable behavior.
- *Extinction*—eliminating any reinforcement that is maintaining a behavior. When the behavior is not reinforced, it tends to gradually be extinguished.
 - Both punishment and extinction weaken behavior and tend to decrease its subsequent frequency.

- Reinforcement, whether it is positive or negative, has an impressive record as a shaping tool.
- A review of research findings:
 - Some types of rewards are more effective for use in organizations than others.
 - The speed with which learning takes place and the permanence of its effects will be determined by the timing of reinforcement. This point is extremely important and deserves considerable elaboration.

3. Schedules of Reinforcement

- The two major types of reinforcement schedules are: (1) continuous and (2) intermittent.
 - A continuous reinforcement schedule reinforces the desired behavior each and every time it is demonstrated.
 - In an intermittent schedule, not every instance of the desirable behavior is reinforced, but reinforcement is given often enough to make the behavior worth repeating.
- Evidence indicates that the intermittent, or varied, form of reinforcement tends to promote more resistance to extinction than does the continuous form.
- An intermittent reinforcement can be of a ratio or interval type.
 - Ratio schedules depend upon how many responses the subject makes; the individual is reinforced after giving a certain number of specific types of behavior. Interval schedules depend upon how much time has passed since the last reinforcement; the individual is reinforced on the first appropriate behavior after a particular time has elapsed.
- A reinforcement can also be classified as fixed or variable.
- Intermittent techniques can be placed into four categories, as shown in Exhibit 2–3.

Reinforcement Scheduled	Nature of Reinforcement	Effect on Behavior
Continuous	Reward given after each desired behavior	Fast learning of new behavior but rapid extinction
Fixed-interval	Reward given at fixed time intervals	Average and irregular performance with rapid extinction
Variable-interval	Reward given at variable times	Moderately high and stable performance with slow extinction
Fixed-ratio	Reward given at fixed amounts of output	High and stable performance attained quickly but also with rapid extinction
Variable-ratio	Reward given at variable amounts of output	Very high performance with slow extinction

- Fixed-interval reinforcement schedule—rewards are spaced at uniform time intervals; the critical variable is time, and it is held constant. An example:
 - This is the predominant schedule for most salaried workers.
- Variable-interval reinforcements—rewards are distributed in time so that reinforcements are unpredictable.
 - Pop quizzes
 - A series of randomly timed unannounced visits to a company office by the corporate audit staff
- In a fixed-ratio schedule, after a fixed or constant number of responses are given, a reward is initiated.
 - A piece-rate incentive plan is a fixed-ratio schedule.
- When the reward varies relative to the behavior of the individual, he or she is said to be reinforced on a variable-ratio schedule.
 - Salespeople on commission.

4. *Reinforcement Schedules and Behavior*

- Continuous reinforcement schedules can lead to early **satiation**. Under this schedule, behavior tends to weaken rapidly when reinforcers are withheld.
- Continuous reinforcers are appropriate for newly emitted, unstable, or low-frequency responses.
- Intermittent reinforcers preclude early satiation because they do not follow every response.
- They are appropriate for stable or high-frequency responses.
- In general, variable schedules tend to lead to higher performance than fixed schedules. (Exhibit 2–4)
- Variable-interval schedules generate high rates of response and more stable and consistent behavior because of a high correlation between performance and reward. The employee tends to be more alert since there is a surprise factor.

Shorts Questions

Chapter 2:

1. Define intellectual abilities and list its main components?

- Intellectual abilities are those needed to perform mental activities.
- Its main components: number aptitude, verbal comprehension, perceptual speed, inductive reasoning, deductive reasoning, spatial visualization, and memory.

2. Explain Operant Conditioning theory of learning?

- People learn to behave to get something they want or to avoid something they do not want.
- The tendency to repeat such behavior is influenced by reinforcement or lack of reinforcement.

3. Explain the main steps of learning according Social Learning theory?

- Attentional processes: pay attention to model and its critical features.
- Retention processes: remembers the model's action.
- Reproduction processes: watching at first step must be converted to doing.
- Reinforcement processes: providing positive incentives or rewards.

4. How can managers shaping employee behavior?

- Positive reinforcement—following a response with something pleasant.
- Negative reinforcement—following a response by withdrawal of something unpleasant.
- Punishment—causing an unpleasant condition to eliminate an undesirable behavior.
- Extinction—eliminating any reinforcement that is maintaining a behavior.

5. Explain variable-interval reinforcement, and how it effect on behavior?

Variable-interval	Reward given at variable times	Moderately high and stable performance with slow extinction
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6. Explain variable-ratio reinforcement, and how it effect on behavior?

Variable-ratio	Reward given at avariable amounts of output	Very high performance with slow extinction
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