

## **Chapter 2 Foundations of Recruitment and Selection I: Reliability and Validity**

### **MULTIPLE CHOICE**

1. What is the first step in an organization's selection process?
  - a. reviewing the candidate pool for the job position
  - b. identifying knowledge, skills, abilities, and other attributes for the job position
  - c. acquiring job analysis information for the job position
  - d. developing performance indicators and job dimension for the job position

ANS: B                      PTS: 1                      REF: 29                      OBJ: 1  
BLM: Remember

2. Which of the following statements applies to a test by the UK Department of Work and Pensions (DWP), as described in the "Sham Psychometric Test" controversy?
  - a. The test was appropriate because it had a valid goal: to help people find jobs.
  - b. The test was appropriate because it came from a larger test that had been validated by DWP.
  - c. The test was inappropriate because it showed strengths but not weaknesses.
  - d. The test was inappropriate because it had not been validated for use by DWP.

ANS: D                      PTS: 1                      REF: 28                      OBJ: 5  
BLM: Higher Order

3. For what is job analysis information used?
  - a. to ensure reliability throughout the selection process
  - b. to identify both the performance domain and the knowledge, skills, abilities, and other attributes linked to job performance
  - c. to ensure the selection process is fair, equitable, and unbiased
  - d. to ensure utility throughout the recruitment and selection process

ANS: B                      PTS: 1                      REF: 30                      OBJ: 1  
BLM: Higher Order

4. In the "Mystery Diners" article, what was the main selection mistake made by the manager?
  - a. not systematically analyzing the requirements of the job
  - b. failing to appreciate the importance of experience when judging a candidate
  - c. overemphasizing the physical appearance of candidates
  - d. considering customer preferences for pretty young wait staff

ANS: A                      PTS: 1                      REF: 31–32                      OBJ: 2  
BLM: Higher Order

5. What is the best way for HR professionals to make sure that their selection decisions meet the standards set by courts and tribunals?
  - a. Completely eliminating such factors as age, gender, and disability when considering candidates
  - b. thoroughly analyzing required KSAO's for each position to be filled
  - c. avoiding making hiring decisions
  - d. using valid and reliable science-based methods when choosing BFOR's

ANS: B                      PTS: 1                      REF: 30                      OBJ: 5

BLM: Higher Order

6. The Toronto Police Service requires candidates to show that they are Canadian citizen or permanent residents, are at least 18 years of age, and have a valid driver's licence and no record of criminal convictions. What would these requirements be classified as?
- KSAO's
  - screening criteria
  - performance dimensions
  - reliable qualifications

ANS: B                      PTS: 1                      REF: 33                      OBJ: 1  
BLM: Higher Order

7. Which of the following is NOT a selection criterion for the Toronto Police Service?
- The applicant must meet the vision standard for the Toronto Police Service.
  - The applicant must have successfully completed four years of secondary school education.
  - The applicant must be a Canadian citizen or landed immigrant.
  - The applicant must not have a criminal record for which a pardon has not been granted.

ANS: B                      PTS: 1                      REF: 33                      OBJ: 1  
BLM: Higher Order

8. Which of the following is NOT a reason to use practice-based selection approaches?
- fit with organizational culture
  - comfort with the process
  - consistency of the process
  - flexibility and speed

ANS: C                      PTS: 1                      REF: 35                      OBJ: 3  
BLM: Remember

9. What is a potential outcome of a science-based selection process?
- a significant number of qualified applicants
  - a defensible system with effective employees
  - a flexible, quick process that fits the organization's culture
  - a process that is comfortable and flexible for all employees

ANS: B                      PTS: 1                      REF: 35                      OBJ: 4  
BLM: Remember

10. What is a potential outcome of a practice-based selection process?
- the effective use of structured and consistent procedures
  - a defensible system with effective employees
  - increased productivity and competitiveness
  - human rights litigation and marginal employees

ANS: D                      PTS: 1                      REF: 35                      OBJ: 4  
BLM: Remember

11. What is a defining characteristic of a practice-based selection process?
- It is defensible.
  - It is intuitive.
  - It is system-wide.

d. It is structured.

ANS: B                      PTS: 1                      REF: 35                      OBJ: 4  
BLM: Remember

12. What is a defining characteristic of a science-based selection process?

- a. It is flexible.
- b. It is intuitive.
- c. It is rational.
- d. It is subjective.

ANS: C                      PTS: 1                      REF: 35                      OBJ: 4  
BLM: Remember

13. What concept is defined by the following: “systematic errors in measurement, or inferences made from those measurements, that are related to different identifiable group membership characteristics such as age, sex, or race?”

- a. discrimination
- b. unfairness
- c. bias
- d. validity

ANS: C                      PTS: 1                      REF: 55                      OBJ: 2  
BLM: Remember

14. What is the final step in the selection process?

- a. developing performance indicators for the individuals who were hired with the process
- b. gathering feedback from the individuals who were hired with the process
- c. demonstrating that hiring decisions based on the selection system have utility
- d. demonstrating that hiring decisions based on the selection system are reliable

ANS: C                      PTS: 1                      REF: 30                      OBJ: 1  
BLM: Remember

15. Which of the following terms refers to relationships between observations?

- a. a variance
- b. a construct
- c. a concept
- d. a validation

ANS: B                      PTS: 1                      REF: 36                      OBJ: 2  
BLM: Remember

16. Which of the following is NOT a statement about reliability?

- a. Reliability is an indication of the stability of measurements.
- b. Reliability is the degree that observed scores are free from random errors.
- c. Reliability is the amount of systemic errors relative to their true score.
- d. Reliability is the consistency of a set of measurements over time.

ANS: C                      PTS: 1                      REF: 37                      OBJ: 2  
BLM: Remember

17. What concept is defined as the degree to which observed scores are free from random measurement errors?
- validity
  - fairness
  - error score
  - reliability

ANS: D                      PTS: 1                      REF: 37                      OBJ: 2  
BLM: Remember

18. Which of the following concepts is defined as the hypothetical difference between an individual's observed score on any particular measurement and the individual's true score?
- measurement error
  - standard deviation
  - lack of standardization
  - test and retest

ANS: A                      PTS: 1                      REF: 40                      OBJ: 3  
BLM: Remember

19. What do you get when you square the reliability coefficient?
- the proportion of consistency in the true scores attributed to true differences on the measured characteristic
  - the proportion of error in the error scores attributed to true differences on the measured characteristic
  - the proportion of measurement error in the observed scores attributed to true differences on the measured characteristic
  - the proportion of variance in the observed scores attributed to true differences on the measured characteristic

ANS: D                      PTS: 1                      REF: 40                      OBJ: 3  
BLM: Remember

20. An HRM used the identical measurement procedure to assess the same characteristic over the same group of people on different occasions. What method of estimating reliability was used?
- test and retest
  - alternate forms
  - internal consistency
  - inter-rater reliability

ANS: A                      PTS: 1                      REF: 43                      OBJ: 4  
BLM: Higher Order

21. Which of the following is correct?
- A test can be reliable but not valid.
  - Construct validity is another term for content validity.
  - Bias refers to the reaction of test takers to a particular test.
  - A test can be valid but not reliable.

ANS: A                      PTS: 1                      REF: 52                      OBJ: 4  
BLM: Higher Order

22. To test validity, a content sampling strategy is often applied to the selection process. Which of the following is NOT a step in this content sampling strategy?
- a. A scoring scheme is developed for the selection assessments.
  - b. Tasks of the target position are identified by job experts.
  - c. Job experts independently rate the reliability of each task.
  - d. Job experts evaluate the relationship between performance and job success.

ANS: C                      PTS: 1                      REF: 50                      OBJ: 4  
BLM: Higher Order

23. In their mid-1970s research, what procedure did researchers Schmidt and Hunter use to challenge the idea that a validity coefficient is specific to the context in which it is measured?
- a. validity generalization
  - b. meta-analysis
  - c. range restriction
  - d. attenuation

ANS: B                      PTS: 1                      REF: 50                      OBJ: 3  
BLM: Higher Order

24. What concept is defined as follows: the decrease in magnitude of the validity coefficient associated with measurement error of the predictor, the criterion, or both?
- a. sampling error
  - b. regression
  - c. attenuation
  - d. differential prediction

ANS: C                      PTS: 1                      REF: 52                      OBJ: 4  
BLM: Remember

25. Which of the following concepts refers to the use of different selection rules for different identifiable subgroups?
- a. subgroup differential
  - b. subgroup bias
  - c. subgroup norming
  - d. subgroup fairness

ANS: C                      PTS: 1                      REF: 56                      OBJ: 5  
BLM: Remember

26. Which employment test has been identified as being biased in favour of males?
- a. Bennett Mechanical Comprehension test
  - b. Wonderlic Personnel test
  - c. Toronto Police Service physical abilities test
  - d. cognitive ability test

ANS: A                      PTS: 1                      REF: 56                      OBJ: 5  
BLM: Higher Order

27. Which of the following is NOT a broad category of factors that affect reliability?
- a. lack of standardization
  - b. temporary individual characteristics
  - c. seasonality
  - d. chance

ANS: C                      PTS: 1                      REF: 41                      OBJ: 3  
BLM: Remember

28. To estimate reliability, it is important to adopt a strategy to develop approximations of parallel measures. Which of the following is NOT such a strategy?
- a. internal consistency
  - b. test and retest
  - c. intra-rater agreement
  - d. alternate forms

ANS: C                      PTS: 1                      REF: 43                      OBJ: 3  
BLM: Remember

29. What could an employer do to establish concurrent validity?
- a. compare test results with performance ratings of existing employees
  - b. compare test results with employee performance ratings after one year on the job
  - c. compare test results with results of previously validated test
  - d. have experts determine whether the test accurately measures the current content of the job

ANS: A                      PTS: 1                      REF: 44                      OBJ: 4  
BLM: Higher Order

30. What concept is defined as the predicted average performance score of a subgroup?
- a. subgroup prediction
  - b. differential prediction
  - c. systematic prediction
  - d. performance prediction

ANS: B                      PTS: 1                      REF: 56                      OBJ: 5  
BLM: Remember

31. Which of the following is NOT a technical quality of a testing procedure?
- a. standardized test administration
  - b. test reliability
  - c. validity evidence
  - d. careful test development

ANS: C                      PTS: 1                      REF: 53                      OBJ: 3  
BLM: Remember

32. What two strategies are typical methods that a researcher uses to acquire evidence for test-criterion relationships?
- a. criterion-related and correlation
  - b. inference and intuition
  - c. differential and selective
  - d. predictive and concurrent

ANS: D                      PTS: 1                      REF: 44                      OBJ: 4  
BLM: Remember

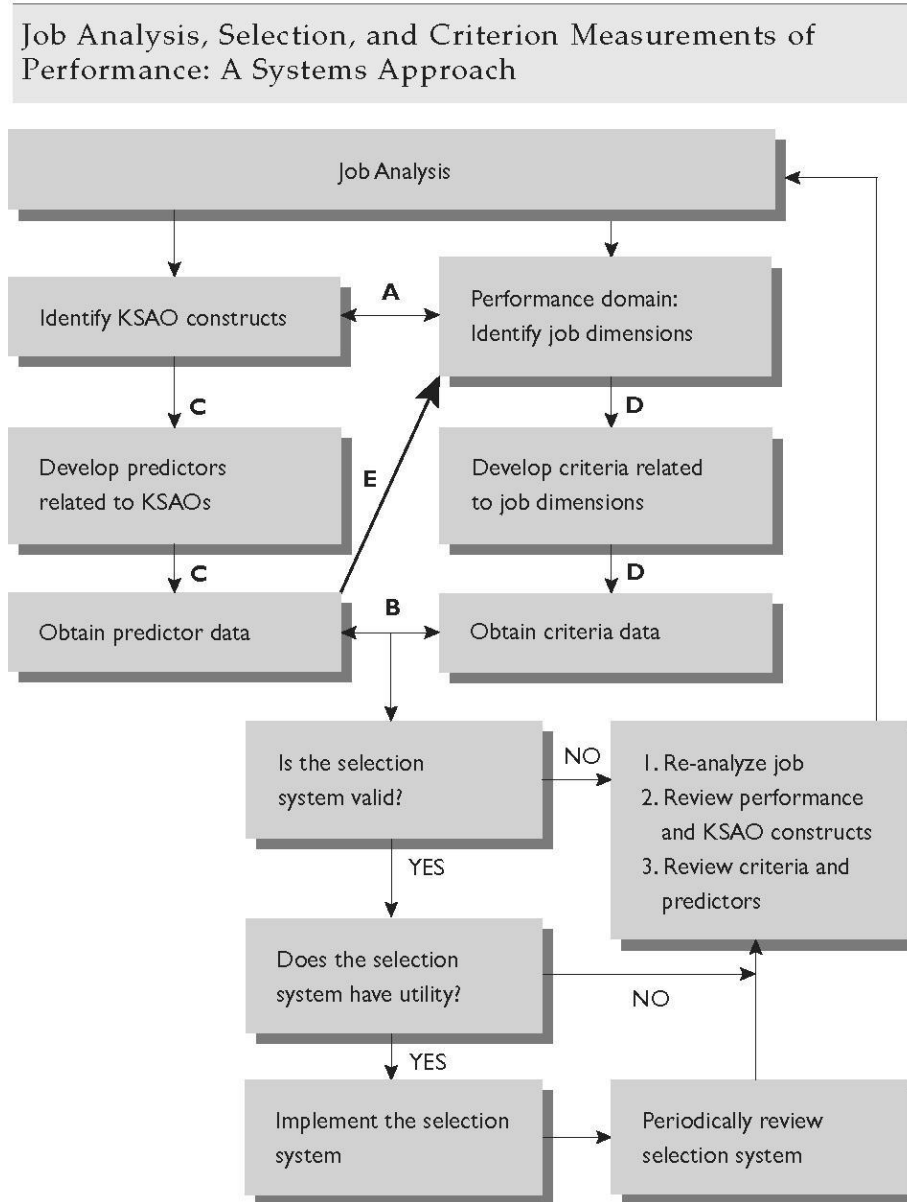
33. The head of HR at Megatherium Industries wants to use a cognitive ability test for applicants to a management position. If she wants to follow science-based methods in selection, but is unwilling to run a validation study, what approach should she use to test validation?
- a. use of best practices
  - b. comparison of test results of high-performing and low-performing employees
  - c. comparison of test questions with job content
  - d. use of validity generalization

ANS: D                      PTS: 1                      REF: 49                      OBJ: 4  
BLM: Higher Order

34. Which of the following statements is true?
- a. Validity concepts in selection apply only to test scores.
  - b. U.S. Labor Department guidelines suggest that tests with validity coefficients above .35 are very beneficial.
  - c. U.S. Labor Department guidelines suggest that only tests with reliability coefficients above .55 should be used in selection.
  - d. Employment tests have been shown to have no adverse impact on applicants.

ANS: B                      PTS: 1                      REF: 53                      OBJ: 4  
BLM: Higher Order

FIGURE 2.1



35. Refer to Figure 2.1. What occurs if the selection system does not have utility?
- The job should be reanalyzed.
  - The selection system should be reviewed.
  - The selection system should be implemented.
  - The selection system should be validated.

ANS: A

PTS: 1

REF: 30

OBJ: 1

BLM: Higher Order



36. Refer to Figure 2.1. What relationship does line A represent?
- a. the relationship among job analysis, KSAOs, and performance management
  - b. the relationship between the performance domain and the KSAOs that contribute to the job performance
  - c. the relationship between the KSAOs and performance competencies
  - d. the relationship among job analysis, KSAOs, and performance criteria and dimensions

ANS: B                      PTS: 1                      REF: 30                      OBJ: 1  
BLM: Higher Order

37. Refer to Figure 2.1. What process does line D represent?
- a. validating the job analysis and identifying performance criteria
  - b. clarifying the performance domain and utilizing the knowledge, skills, abilities, and other attributes' constructs
  - c. defining the performance domain and developing related criterion measurements
  - d. validating the selection system

ANS: C                      PTS: 1                      REF: 30                      OBJ: 1  
BLM: Higher Order

38. Refer to Figure 2.1. What process does line C represent?
- a. validating the job analysis, knowledge, skills, abilities, and other attributes, and performance domain
  - b. utilizing the knowledge, skills, abilities, and other attributes' constructs to clarify the performance dimensions
  - c. translating the knowledge, skills, abilities, and other attributes' constructs into valid measurable predictors
  - d. establishing criterion-related validity

ANS: C                      PTS: 1                      REF: 30                      OBJ: 1  
BLM: Higher Order

39. Refer to Figure 2.4. What process does line E represent?
- a. validating the job analysis, knowledge, skills, abilities, and other attributes and performance domain
  - b. predicting which applicants will be successful in their position
  - c. utilizing the knowledge, skills, abilities, and other attributes constructs to clarify the performance dimensions
  - d. translating the knowledge, skills, abilities, and other attributes constructs into valid measurable predictors

ANS: B                      PTS: 1                      REF: 30                      OBJ: 1  
BLM: Higher Order

**TRUE/FALSE**

1. The employer's goal in selection is to hire an applicant who possesses the necessary knowledge, skills, abilities, and other attributes to perform the job being filled.

ANS: T                      PTS: 1                      REF: 32                      OBJ: 1

2. The goal of selection is to identify job candidates who have those attributes required for success on the job.

ANS: T                      PTS: 1                      REF: 32                      OBJ: 1

3. Employers must know the legal and professional standards in order to increase the likelihood that their selection processes are compliant.

ANS: T                      PTS: 1                      REF: 34                      OBJ: 1

4. If an employer does not have a reliable and valid selection process, it can still make a correct guess about an applicant that will have positive benefits for the organization.

ANS: T                      PTS: 1                      REF: 34                      OBJ: 3

5. An employer's employment decisions must be rational and intuitive.

ANS: F                      PTS: 1                      REF: 35                      OBJ: 1

6. An employer's recruitment and selection-process goal is to attract and hire an applicant who possesses the knowledge, skills, abilities, and other attributes to successfully perform the job.

ANS: T                      PTS: 1                      REF: 32                      OBJ: 1

7. Hiring decisions must be defensible; they must meet legal requirements and professional standards of reliability and validity.

ANS: T                      PTS: 1                      REF: 35                      OBJ: 3

8. The HR manager focuses on one variable, usually job performance, in the selection process.

ANS: F                      PTS: 1                      REF: 30                      OBJ: 4

9. The reliability coefficient is the degree that true scores correlate with one another.

ANS: F                      PTS: 1                      REF: 39                      OBJ: 2

10. Measurement error can be thought of as the hypothetical difference between an individual's observed score on any particular measurement and the individual's true score.

ANS: T                      PTS: 1                      REF: 40                      OBJ: 3

11. When candidates are asked different questions from one interview to the other, validity is reduced.

ANS: F                      PTS: 1                      REF: 41                      OBJ: 4

12. Validity is the degree to which observed scores are free from random measurement errors.

ANS: F                      PTS: 1                      REF: 45                      OBJ: 2

13. The principle that every test taker should be assessed in an equitable manner is known as equity.

ANS: F                      PTS: 1                      REF: 56                      OBJ: 5

14. Issues of fairness need to be determined statistically.

ANS: F                      PTS: 1                      REF: 56                      OBJ: 5

15. Achieving fairness often requires compromise between conflicting interests.

ANS: T                      PTS: 1                      REF: 56                      OBJ: 5

### SHORT ANSWER

1. How does science affect the selection process?

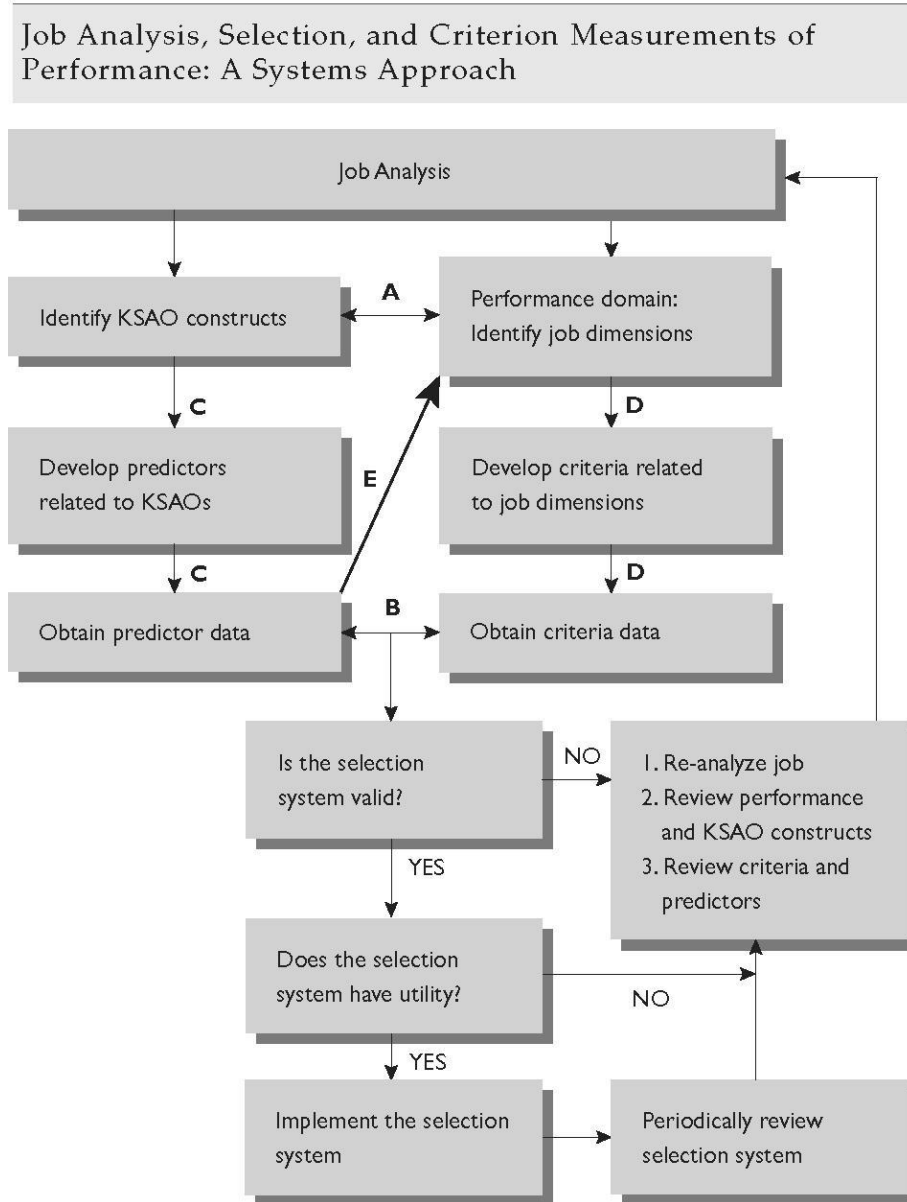
ANS:

To remove the guessing in selection, a selection system must be built on sound empirical support, be reliable and valid, and operate within a legal context.

- Hiring decisions must be defensible; they must meet legal requirements and professional standards of reliability and validity.
- The measures used to make the hiring decisions must be stable and provide job-related information.
- Employment decisions must be valid and meet legal requirements.
- Refer to Figure 2.1, Job Analysis, Selection, and Criterion Measurements of Performance: A Systems Approach, on page 30, and Table 2.1, Human Resources Management: Science versus Practice in Selection, on page 35.

PTS: 1                      REF: 30, 35                      OBJ: 1

FIGURE 2.1



2. Describe the process and components of selection model Figure 2.1.

ANS:

The job analysis information is used to identify the performance domain and also the knowledge, skills, abilities, and other attributes linked to job performance. Line A represents the relationship between the performance domain and the knowledge, skills, abilities, and other attributes that contribute to the performance of job tasks and behaviours. Line D represents the process of defining the performance domain and developing related criterion measurements. Line C represents the process of translating the knowledge, skills, abilities, and other attributes' constructs into valid, measurable predictors. Line E represents predicting which applicants will be successful in their position. The final step in the selection process is to demonstrate that hiring decisions are based on the selection system's utility.

PTS: 1

REF: 30

OBJ: 1

3. Scribe Engineering, a medium-sized information technology company, is having difficulties recruiting and retaining several of its administrative assistant positions. Traditionally, Scribe has used a practice-based selection process. As the new HRM, what would you suggest to the CEO?

ANS:

Scribe Engineering should undertake a job analysis of an administrative assistant to determine the essential components of office administration work and the level of performance required for success (performance domain and knowledge, skills, abilities, and other attributes) and then create a series of tests to measure those components among administrative assistants.

Refer to Figure 2.1, Job Analysis, Selection, and Criterion Measurements of Performance: A Systems Approach, on page 30; Table 2.1, Human Resources Management: Science versus Practice in Selection, on page 35; and Figure 2.4, Validation Strategies, on page 46, which emphasizes the importance of job analysis, selection, and criterion measurements of performance, systems approach, and science-based selection.

PTS: 1                      REF: 30, 35, 46                      OBJ: 1–4

4. Choose a specific job you are familiar with and choose one characteristic that you think is critical to successfully performing that job. If you were the HRM hiring for this position, what would you consider in measuring the characteristic and job performance to ensure reliability and validity?

ANS:

Refer to the short answer question and answer (above) on science-based selection, reliability, and validity. Figure 2.1, Job Analysis, Selection, and Criterion Measurements of Performance: A Systems Approach, on page 30; Table 2.1, Human Resources Management: Science versus Practice in Selection, on page 35; and Recruitment and Selection Notebook 2.2, Validity, which emphasizes the importance of job analysis, selection, and criterion measurements of performance, systems approach, and science-based selection. Refer to the example of the Toronto Police Service, on page 33.

PTS: 1                      REF: 30, 32, 33, 35, 44, 50                      OBJ: 1–4

5. Since TS Inc. is a small, growing aviation company, the CEO makes the hiring decisions based on his years of experience as well as his gut feeling. He started the business 10 years ago with 10 employees and the company has grown to over 30 employees. The CEO has asked you, the HRM, to explain some of the differences between the use of his practice-based selection approach and an empirical-based process. Also explain what challenges you anticipate he would face in using validation techniques.

ANS:

Validation studies require relatively large number of hires. The challenge for TS Inc. is that it does not hire many people.

Refer to Table 2.1, Human Resources Management: Science versus Practice in Selection, on page 35, and Recruitment and Selection Notebook 2.2, Validity, on page 50).

PTS: 1                      REF: 35, 50                      OBJ: 1

6. What is reliability? Identify three factors affecting reliability.

ANS:

*Reliability* is the degree to which observed scores are free from random measurement errors. Reliability is an indication of the stability or dependability of a set of measurements over repeated applications of the measurement procedure. Reliability refers to the consistency of a set of measurements when a testing procedure is repeated on a population of individuals or groups. In terms of testing, it is expected that a test will provide approximately the same information each time it is given to that person.

*Factors Affecting Reliability*

- Temporary individual characteristics: if a job candidate is quite ill or anxious, the know-how score may be affected and have a greater error component.
- Lack of standardization: changing the conditions under which measurements are made introduces error in the measurement process. For example, reliability is decreased if different candidates are asked different questions during interviews. If the environment varies in which candidates for the same job are interviewed, it will affect reliability.
- Chance: factors unique to a specific procedure introduce error into the set of measurements. If an employer has interviewed someone previously, that applicant will have a better chance of performing well in an interview with that employer again.

PTS: 1                      REF: 37–44                      OBJ: 3

7. What is validity in selection? Describe four validation strategies.

ANS:

*Validity* is the degree to which accumulated evidence and theory support specific interpretations of test scores in the context of the test's proposed use.

- Evidence based on test content: this type of validity evidence comes from analyzing the relationship between a test's content and the construct the test is intended to measure. Evidence of validity based on test content can consist of either empirical or logical analyses of how well the contents of the test, and interpretation of the test scores, represent the construct.
- Evidence based on relations to other variables: this type of evidence is based on an analysis of the relationship between test scores and other variables that are external to the test.
- Predictive evidence for test-criterion relationships: *predictive* evidence is obtained through research designs that establish the correlation between predictor scores (know-how scores) obtained before an applicant is hired and criteria (performance scores) obtained at a later time, usually after an applicant is employed.
- Concurrent evidence for test-criterion relationships: *concurrent* evidence is obtained through research designs that establish a correlation between predictor and criteria scores from information that is collected at approximately the same time from a specific group of workers.

PTS: 1                      REF: 45–52                      OBJ: 4

8. What is bias in selection?

ANS:

*Bias* refers to systematic errors in measurement, or inferences made from those measurements, that are related to different identifiable group membership characteristics such as age, sex, or race.

PTS: 1                      REF: 55, 56                      OBJ: 5

9. What is fairness? Why is it an important concept in selection?

ANS:

*Fairness* in measurement refers to the value judgments people make about the decisions or outcomes that are based on those measurements. Fairness is the principle that every test taker should be assessed in an equitable manner. Issues of fairness cannot be determined statistically or empirically. Fairness involves perceptions. It is important from a business, ethical, and legal standpoints to have tests that are scientifically sound; it is also important to have procedures that are perceived as fair. From a business perspective, the adverse reactions to selection tests and procedures may impair the ability of the organization to recruit and hire the best applicants.

PTS: 1

REF: 56, 58

OBJ: 5