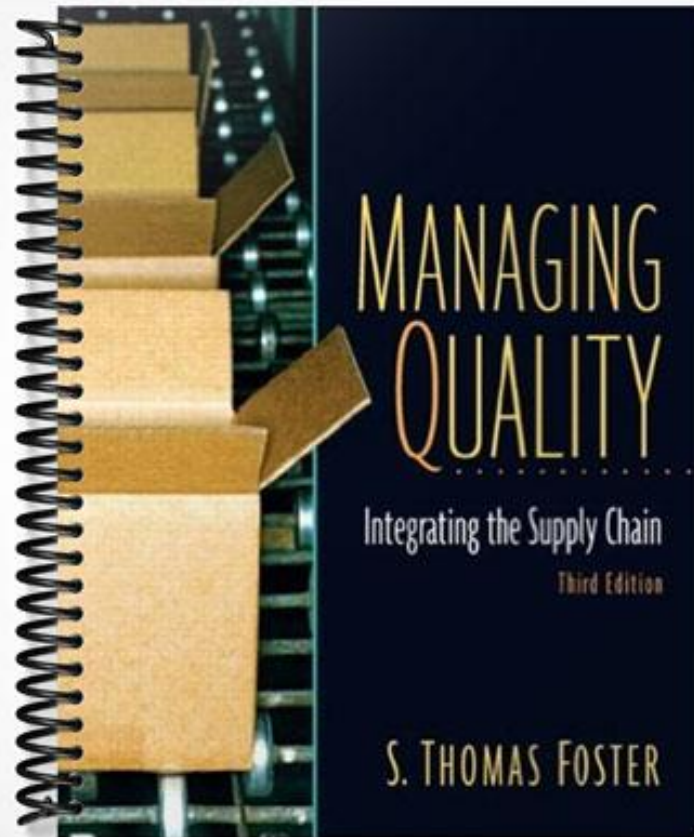


TEST BANK



CHAPTER 2

QUALITY THEORY

MULTIPLE-CHOICE QUESTIONS

WHAT IS THEORY?

Answer: C
Easy

1. A coherent group of general propositions used as principles of explanation for a class of phenomena is referred to as a:

A. postulate
B. axiom
C. theory
D. corollary
E. hypothesis

Answer: A
Moderate

2. An arrow pointing from an independent variable to a dependent variable in a theoretical model typically implies:

A. causality
B. spurious relationship
C. lack of causality
D. **no** relationship
E. lack of proof

Answer: E
Hard

3. For a theory to be complete, it must have four elements. These elements are:

A. timeliness, uniqueness, completeness, and what-how-why
B. hypothesis, dependent variable, independent variable, and who-where-when
C. where, when, how-much, and why-now
D. time, cost, weight, and height
E. what, how, why, and who-where-when

Answer: C
Moderate

4. The _____ of a theoretical model involves the nature, direction, and extent of the relationship between the variables,

A. why
B. what
C. how
D. who
E. when

Answer: A
Moderate

5. The _____ of the theory is the theoretical glue that holds the model together.

- A. why
- B. what
- C. how
- D. who
- E. when

Answer: D
Moderate

6. The _____ aspects place contextual bounds on the theory.

- A. why-how-where
- B. how-when-what
- C. what, how-much, when
- D. who-where-when
- E. how-much, how-long, why-now

Answer: D
Moderate

7. A theory that is generated by observation and description is said to have been developed by the process of:

- A. deduction
- B. abstraction
- C. speculation
- D. induction
- E. supposition

Answer: B
Moderate

8. A theory that is generated through research, experimentation, and hypothesis testing is said to have been developed by the process of:

- A. supposition
- B. deduction
- C. induction
- D. inference
- E. conjecture

Answer: E
Moderate

9. Using _____, researchers propose a model based on prior research and design an experiment to test the model.

- A. inference
- B. conjecture
- C. supposition
- D. induction
- E. deduction

Answer: A
Moderate

10. Which of the following statements is true regarding quality improvement?
- A. as yet, there is **not** a unified theory explaining quality improvement that is widely accepted by the quality community
 - B. there are widely accepted theories of quality improvement for products but **not** for services.
 - C. there are several widely accepted theories of quality improvement
 - D. to date, **no** one has attempted to advance a theory of quality improvement
 - E. there are widely accepted theories of quality improvement for services but **not** for products

Answer: B
Hard

11. According to the textbook, the literature concerning quality is:
- A. clear and coherent
 - B. contradictory and somewhat confusing
 - C. consistent but somewhat confusing
 - D. paradoxical yet very precise
 - E. consistent and precise

W. EDWARDS DEMING

Answer: E
Easy

12. _____ was widely accepted as the world's preeminent authority on quality management prior to his death on December 24, 1993 because of his influence on Japanese and American industry.
- A. Philip Crosby
 - B. Genichi Taguchi
 - C. Armand Feigenbaum
 - D. Kaoru Ishikawa
 - E. W. Edwards Deming

Answer: A
Moderate

13. In the late 1970s, when it became apparent that many Japanese products had better quality than U.S. products, U.S. managers were surprised to learn that the Japanese still use the original lectures given by _____ to train new generations of business people.
- A. W. Edwards Deming
 - B. Thomas Peters
 - C. Armand Feigenbaum
 - D. Michael Hammer
 - E. Philip Crosby

- Answer: B
Hard
14. While Deming is best known for his emphasis on the management of a system for improving quality, his thinking was based on the use of _____ to continually improve.
- A. econometrics
 - B. statistics
 - C. physics
 - D. computer science
 - E. psychology
- Answer: C
Moderate
15. After World War II, Deming was sent to _____, where he lectured extensively on quality related issues.
- A. Germany
 - B. England
 - C. Japan
 - D. France
 - E. Australia
- Answer: C
Moderate
16. Late in his life, Deming commented that he had consulted around the world and had found that _____ commitment to quality was unparalleled.
- A. America's
 - B. Italy's
 - C. Japan's
 - D. Germany's
 - E. England's
- Answer: D
Hard
17. Deming's mantra was:
- A. "high quality equals high profits"
 - B. "quality is free"
 - C. "quality is everyone's concern"
 - D. "continual never-ending improvement"
 - E. "profits follow quality?"
- Answer: D
Moderate
18. The "14 Points for Management" were articulated by:
- A. Philip Crosby
 - B. Joseph Juran
 - C. Genichi Taguchi
 - D. W. Edwards Deming
 - E. Armand Feigenbaum

- Answer: A
Moderate
19. Deming believed that poor quality was **not** the fault of labor; it resulted from:
- A. poor management of the system for continual improvement
 - B. poor human resource management
 - C. consumer complacency
 - D. a lack of commitment on the part of management
 - E. poor engineering and design
- Answer: B
Moderate
20. JIT purchasing differs from traditional purchasing because in JIT purchasing:
- A. there are large lots with less frequent deliveries
 - B. counting and receiving inspection of parts is reduced and eventually eliminated
 - C. there are multiple sources of supply for a given part
 - D. the primary objective is to get the lowest possible price
 - E. the emphasis is on quality, delivery performance, and price, but about 2% reject from the supplier is acceptable
- Answer: D
Moderate
21. Traditional purchasing is different from JIT purchasing because in traditional purchasing:
- A. small standard containers are used to hold exact quantities
 - B. less formal paperwork exists
 - C. delivery time and quantity level can be changed with phone calls
 - D. delivery schedules are left to the supplier
 - E. the buyer relies more on performance specifications than on product design
- Answer: A
Easy
22. W. Edwards Deming would be in favor of:
- A. a zero defects program
 - B. work standards on the factory floor
 - C. motivating employees by fear
 - D. decision-making only by management
 - E. educational programs and on the job training
- Answer: B
Hard
23. Anderson, Rungtusanatham, and Schroeder proposed a theoretical causal model underlying the _____ management model.
- A. Juran
 - B. Deming
 - C. Taguchi
 - D. Crosby
 - E. Peters

JOSEPH JURAN

- Answer: A
Moderate
24. The three aspects of Juran's trilogy are:
- A. planning, control, and improvement
 - B. cost, quality, and customer satisfaction
 - C. labor, management, and systems
 - D. organizing, management, and control
 - E. leadership, cost, and quality
- Answer: D
Easy
25. Juran identified three basic processes that are essential for managing to improve quality. These processes are referred to as:
- A. the circle of quality
 - B. Juran's pyramid
 - C. the quality continuum
 - D. Juran's trilogy
 - E. the essence of quality
- Answer: C
Moderate
26. The three aspects of Juran's trilogy are planning, control, and:
- A. leadership
 - B. organizing
 - C. improvement
 - D. communication
 - E. decision making
- Answer: A
Moderate
27. According to Juran, _____ is a process-related activity that ensures processes are stable and provides a relatively consistent outcome.
- A. control
 - B. organizing
 - C. leadership
 - D. decision making
 - E. power
- Answer: E
Moderate
28. _____ improvement implies that the process has been studied and that some major improvement has resulted in large, non-random improvements in the process.
- A. Ongoing
 - B. Progressive
 - C. Successive
 - D. Incremental
 - E. Breakthrough

Answer: B
Moderate

29. It is important to understand that control and breakthrough-related activities should occur:
- A. successively
 - B. simultaneously
 - C. in random patterns
 - D. consecutively
 - E. independent of one another

Answer: C
Hard

30. According to Juran, the language of management is:
- A. labor productivity
 - B. quality
 - C. money
 - D. performance
 - E. improvement

Answer: B
Moderate

31. _____ analysis is similar to the 80/20 rule.
- A. Ishikawa's
 - B. Pareto's
 - C. Steven's
 - D. Taguchi's
 - E. Deming's

Answer: A
Moderate

32. Using Pareto's law, we see that the majority of quality problems are caused by:
- A. relatively few causes
 - B. few causes in manufacturing and many causes in services
 - C. few cause in services and many causes in manufacturing
 - D. a large number of diverse and unrelated causes
 - E. people

THE TAYLOR REVOLUTION

Answer: D
Moderate

33. The driving force of the Century of Productivity was the movement known as:
- A. total quality management
 - B. statistical process control
 - C. the human resources movement
 - D. scientific management
 - E. behavioral modification

- Answer: A
Hard
34. Which of the following statements is **incorrect** regarding Taylor's approach to scientific management?
- A. it made a basic change in managerial practice—the merging together of planning and execution
 - B. it rested on the premise that workers and supervisors lacked the education base needed to do planning
 - C. it gave the planning function to managers and engineers
 - D. it limited supervisors and workers to the function of executing plans
 - E. it was the driving force of productivity in its era

THE JAPANESE QUALITY REVOLUTION

- Answer: C
Moderate
35. In the context of quality, the most important event following World War II was the:
- A. American quality revolution
 - B. advent of scientific management
 - C. Japanese quality revolution
 - D. advent of statistical process control
 - E. German quality revolution

KAORU ISHIKAWA

- Answer: B
Hard
36. According to our textbook, the foremost Japanese leader in the Japanese quality movement was:
- A. Genichi Taguchi
 - B. Kaoru Ishikawa
 - C. William Ouchi
 - D. Yoshihide Munekuni
 - E. Hiroyuki Yoshino
- Answer: A
Moderate
37. The development and dissemination of the basic seven tools of quality was the work of:
- A. Kaoru Ishikawa
 - B. Philip Crosby
 - C. Genichi Taguchi
 - D. W. Edwards Deming
 - E. Joseph Juran

Answer: E
Hard

38. The quality scholar credited with democratizing statistics was:

- A. Armand Feigenbaum
- B. Thomas Peters
- C. Genichi Taguchi
- D. Philip Crosby
- E. Kaoru Ishikawa

Answer: D
Hard

39. The major theoretical contribution of Kaoru Ishikawa was:

- A. the concept of benchmarking
- B. his assertion that “quality is free”
- C. Pareto Analysis
- D. his emphasis on total involvement of the operating employees in improving quality
- E. his insight that organizational quality problems are largely the result of insufficient and ineffective planning for quality

ARMAND FEIGENBAUM

Answer: D
Moderate

40. The book *Total Quality Control* was written by:

- A. Philip Crosby
- B. Genichi Taguchi
- C. Kaoru Ishikawa
- D. Armand Feigenbaum
- E. Joseph Juran

Answer: A
Hard

41. Feigenbaum’s primary contribution to quality thinking in America was his assertion that:

- A. the entire organization should be involved in improving quality
- B. quality is free
- C. quality problems are largely the result of insufficient and ineffective planning
- D. quality problems are largely the result of ineffective implementation
- E. quality equals profitability

- Answer: B
Moderate
42. Feigenbaum proposed a three-step process to improving quality. These steps were:
- A. quality inspection, quality accountability, quality control
 - B. quality leadership, quality technology, and organizational commitment
 - C. employee empowerment, total quality management, and statistical process control
 - D. self-directed work teams, employee empowerment, and total quality management
 - E. quality leadership, quality management, and total quality control

- Answer: D
Hard
43. _____ quality refers to those quality programs that receive a lot of hoopla and no follow-through.
- A. Wishful thinking
 - B. Red Herring
 - C. Latest fad
 - D. Hothouse
 - E. Promises, promises

PHILIP CROSBY

- Answer: E
Moderate
44. _____ is associated with the concept of total quality.
- A. Philip Crosby
 - B. Tom Peters
 - C. Robert Camp
 - D. Genichi Taguchi
 - E. Armand Feigenbaum

- Answer: C
Moderate
45. Tom Peters became very well known for his authorship of the book:
- A. Total Quality Control
 - B. Quality is Free
 - C. In Search of Excellence
 - D. Quality is Job 1
 - E. Reengineering the Corporation

GENICHI TAGUCHI

- Answer: D
Hard
46. Among the unique aspects of the Taguchi method are:
- A. a reliance on statistics, employee empowerment, and the concept of robust design
 - B. quality leadership, quality technology, and organizational commitment
 - C. Taguchi's definition of empowerment, the quality loss function, and the concept of total quality management
 - D. Taguchi's definition of quality, the quality loss function, and the concept of robust design
 - E. a reliance on the scientific method, employee empowerment, and the quality loss function
- Answer: E
Moderate
47. In Taguchi's terms, "ideal quality" refers to:
- A. zero defects
 - B. total customer satisfaction
 - C. conformance to specifications
 - D. 99.99 percent defect free
 - E. a reference point for determining the quality level of a product or service
- Answer: B
Hard
48. Which scholar first introduced his approach to quality to AT&T Bell Laboratories in 1980?
- A. Joseph Juran
 - B. Genichi Taguchi
 - C. W. Edwards Deming
 - D. Kaoru Ishikawa
 - E. Philip Crosby
- Answer: B
Moderate
49. The Taguchi concept of _____ states that products and services should be designed so that they are inherently defect-free and of high quality.
- A. homoscedasticity
 - B. robust design
 - C. statistical process control
 - D. product/service integrity
 - E. statistical independence

THE REST OF THE PACK

Answer: A 50. _____ is the principle pioneer of benchmarking.
Moderate

- A. Robert C. Camp
- B. Thomas Peters
- C. Michael Hammer
- D. Philip Crosby
- E. Armand Feigenbaum

Answer: C 51. Frederick Taylor is well know for co-authoring the book:
Moderate

- A. Reengineering the Corporation
- B. Total Quality Control
- C. The Principles of Scientific Management
- D. Quality is Free
- E. In Search of Excellence

Answer: B 52. Michael Hammer and James Champy are most closely identified with:
Moderate

- A. statistical process control
- B. reengineering
- C. total quality management
- D. benchmarking
- E. six sigma quality

Answer: D 53. Hammer and Champy have been surprisingly candid about the failings
Hard of reengineering admitting to a _____ or higher failure rate.

- A. 20 percent
- B. 40 percent
- C. 55 percent
- D. 70 percent
- E. 85 percent

Answer: A 54. Michael Hammer and James Champy are well known for co-authoring
Moderate the book:

- A. Reengineering the Corporation
- B. Total Quality Control
- C. The Principles of Scientific Management
- D. Quality is Free
- E. In Search of Excellence

- Answer: D
Moderate
55. Stephen Covey is well-known for authoring the book:
- A. Reengineering the Corporation
 - B. Total Quality Control
 - C. The Principles of Scientific Management
 - D. The 7 Habits of Highly Effective People
 - E. In Search of Excellence

VIEWING QUALITY THEORY FROM A CONTINGENCY PERSPECETIVE

- Answer: A
Easy
56. The adoption of aspects of a number of various approaches is known as the:
- A. contingency approach
 - B. unfocused dilemma
 - C. functional silo problem
 - D. holistic approach
 - E. Perot system
- Answer: E
Hard
57. Quality experts agree that quality can be assured only during the:
- A. production phase
 - B. marketing campaign
 - C. sales process
 - D. installation and testing procedure
 - E. design phase
- Answer: C
Moderate
58. Your author indicates that although statistical inspection is an important approach to improving quality, it is inherently:
- A. wrong
 - B. evil
 - C. reactive
 - D. difficult
 - E. philosophical

RESOLVING THE DIFFERENCES IN QUALITY APPROACHES: AN INTEGRATIVE VIEW

- Answer: D
Moderate
59. Companies having weak _____ will **not** achieve market advantage in quality.
- A. planning
 - B. organization
 - C. information analysis
 - D. leadership
 - E. environment
- Answer: C
Hard
60. Quality theorists Deming, Juran, Crosby, Taguchi, Ishikawa, and Feigenbaum all agree that:
- A. the role of the leader in being the champion and major force behind quality improvement is critical
 - B. employees must be trained and developed
 - C. adoption of a philosophy towards continual improvement is important
 - D. an understanding of the customer is key to quality management efforts
 - E. quality environment or infrastructure must be created
- Answer: B
Moderate
61. One weakness of the reengineering approach to quality improvement is that it does **not** address:
- A. team approach
 - B. information analysis
 - C. strategic planning
 - D. customer focus
 - E. quality assurance
- Answer: A
Moderate
62. The core of quality management variables contains:
- A. leadership
 - B. environmental characteristics
 - C. team approach
 - D. information analysis
 - E. strategic planning

TRUE-FALSE QUESTIONS

WHAT IS THEORY?

- Answer: T
Moderate
63. For a theory to be complete, it must have four elements: what, how, why, and who-where-when.
- Answer: F
Moderate
64. A theory that is generated by observation and description is said to have been developed by the process of deduction.

Answer: T
Moderate 65. Using deduction, researchers propose a model based on prior research and design an experiment to test the theoretical model.

Answer: F
Easy 66. Fortunately, there is a unified theory explaining quality improvement that is widely accepted by the quality community.

LEADING CONTRIBUTORS TO QUALITY THEORY

Answer: T
Moderate 67. Joseph M. Juran teaches that improvement in organizations is accomplished on a project-by-project basis.

Answer: T
Hard 68. Deming's mantra was "continual never-ending improvement."

Answer: T
Easy 69. One of Deming's 14 points is to cease mass inspection.

Answer: F
Moderate 70. Traditional purchasing is characterized by loose product specifications; the buyer relies more on performance specifications than on product design.

Answer: F
Easy 71. A way to increase the speed of design cycles is to adopt the departmental approach to design.

Answer: F
Hard 72. Deming would be in favor of management by objective.

Answer: F
Hard 73. Deming tends to take a more strategic and planning approach to improvements than Juran.

Answer: T
Moderate 74. The three aspects of the Juran trilogy are planning, control, and improvement.

Answer: F
Moderate 75. Pareto's law was identified by Philip Crosby.

Answer: T
Moderate 76. One of Ishikawa's greatest achievements was the development and dissemination of the basic seven tools of quality.

Answer: T
Moderate 75. Feigenbaum proposed a three-step process to improve quality. These steps include quality leadership, quality technology, and organizational commitment.

Answer: F
Moderate 78. Genichi Taguchi has been the most successful in marketing his quality expertise of all the leading quality authors and thinkers.

Answer: F
Moderate

79. Deming became very well known for his book *Quality is Free*.

Answer: T
Moderate

80. Among the unique aspects of the Taguchi method are the Taguchi definition of quality, the quality loss function (QLF) and the concept of robust design.

Answer: F
Moderate

81. Tom Peters is the principle pioneer of benchmarking.

VIEWING QUALITY FROM A CONTINGENCY PERSPECTIVE

Answer: T
Moderate

82. Firms that are successful in improving quality take a contingency approach.

Answer: T
Moderate

83. Quality experts agree that quality can be assured only during the design phase.

Answer: F
Easy

84. It is **not** important to adopt a company philosophy toward quality improvement since they are all so different.

RESOLVING THE DIFFERENCES IN QUALITY APPROACHES: AN INTEGRATIVE VIEW

- Answer: T 85. Customer focus is at the core of quality management.
Easy
- Answer: T 86. Quality management begins with leadership.
Moderate
- Answer: T 87. The underlying precept of re-engineering is that firms can become
Moderate inflexible and resistant to change and must be able to change to be
competitive.
- Answer: F 88. Continual improvement precludes the need to make large improvements.
Moderate

ESSAY QUESTIONS

- Easy 89. What is theory? Provide an example of the use of theory in a business organization.

Answer: Generally, theory is a “coherent group of general propositions used as principles of explanation for a class of phenomena.” For example, it might have been observed that many companies that have implemented quality improvement have experienced improved worker moral. Therefore, the theory would be that quality improvement leads to improved worker morale (as shown in Figure 2.1 in the textbook).

- Moderate 90. Discuss the contributions of W. Edwards Deming to quality thinking?

Answer: W. Edwards Deming has made a profound impact on quality thinking worldwide. Throughout his career, Deming gave seminars, wrote books, taught classes, and published articles to explain his approach to quality management. Deming’s mantra was “continual never-ending improvement.” The essence of his thinking was that quality is a function of the management of the “system” within a firm, and is not the sole responsibility of workers. Deming used statistics to support his arguments. He argued that the goal of higher levels of quality would perhaps never be completely met, but firms that continually worked towards higher levels of quality would get better and better. He articulated his thinking in his “14 Points for Management.” The 14 Points for Management are reflected in Table 2.1 in the textbook.

- Hard 91. Describe Pareto Analysis.

Answer: Joseph Juran identified an economic concept that he applied to quality problems. This economic concept is called Pareto’s law or the 80/20 rule, and is named after the Italian economist Vilfredo Pareto. Pareto found that 80 percent of the wealth in Milan was held by 20% of

the population. Using Pareto's law, we can see that the majority of quality problems are caused by relatively few causes.

Hard

92. Identify and briefly discuss the core quality management content variables.

Answer: The core variables are leadership, employee improvement, quality assurance, customer role, and philosophy.

The role of the leader in being the champion and major force behind quality improvement is critical. Leaders must be conversant with quality management approaches and then lead by example.

Employees must be trained and developed and this must be viewed as a long-term undertaking that is an investment in employees.

Quality can be assured only during the design phase, therefore, efforts must be invested in designing products, services, and processes so that they are consistently of high quality.

An understanding of the customer is key to quality management efforts. Adoption of a philosophy towards quality improvement is important because it provides the company with a road map to follow during their quest for improvement.

93. Discuss a business example of one of Covey's 7 practices. How does it relate to quality.

Sample answer:

7. Sharpen the saw.

Several of the quality gurus emphasize training and education.