**Chapter Eleven**

**The Future of Training and Development**

OBJECTIVES

1. Identify the future trends that are likely to influence the training departments and trainers.

2. Discuss how these future trends may impact training delivery and administration as well as the strategic role of the training department.

3. Discuss how rapid instructional design differs from traditional training design.

4. Discuss the advantages of embedded learning.

5. Discuss how training can contribute to a company’s sustainability initiative.

6. Discuss the implications of cloud computing for learning, training, and development.

**MULTIPLE CHOICE**

11.1 \_\_\_\_\_ refers to a company’s ability to make a profit without sacrificing the resources of its employees, the community, or the environment.

1. Sustainability
2. Accountability
3. Diversity training
4. Eco-management

Answer: a

Difficulty: easy

Learning objective: 5

11.2. A *Fitbit* in an example of \_\_\_\_\_.

1. A wearable
2. Augmented reality
3. Gamification
4. Tin Can API

Answer: a

Difficulty: easy

Learning objective: 1/2

11.3. A \_\_\_\_\_ collects and stores learning experiences in the form of statements that can be organized and presented in a meaningful way.

1. Learning Records Store (LRS)
2. Learning Management System (LMS)
3. Social Network Support System (SNSS)
4. Just-in-Time Learning System (JITLS)

Answer: a

Difficulty: easy

Learning objective: 1/2

11.4. \_\_\_\_\_ is a specification for learning technology that makes it possible to collect data about an employee’s or a team’s online and face-to-face learning experiences.

1. Gamification
2. Tin Can API
3. Training Technology Enhancement
4. Artificial Intelligence

Answer: b

Difficulty: easy

Learning objective: 1/2

11.5. \_\_\_\_\_ involves collecting information about users’ activities, analyzing data to identify patterns and trends, and understanding how these trends link to business goals and outcomes.

1. Social network analysis
2. Artificial intelligence
3. Tin Can API
4. Big data

Answer: d

Difficulty: easy

Learning objective: 1/2

11.6. Which of the following is a criticism of the traditional training design model?

1. The trainer is the least important component of the design.
2. It is a linear approach driven by subject-matter experts.
3. It assumes that the training content is unstable.
4. It takes very little time compared to the rapid instructional design model.

Answer: b

Difficulty: medium

Learning objective: 3

11.7. Which of the following statements is true of rapid instructional design (RID)?

1. Resources that are devoted to design and delivery of instruction cannot be reallocated.
2. Instructional content and process can be developed independently of each other.
3. Rapid instructional design is a self-serviced, modifiable, and on-demand computing system that provides information technology infrastructure over a network.
4. Rapid instructional design refers to a company that provides software for a specific application.

Answer: b

Difficulty: medium

Learning objective: 3

11.8. All of the following are examples of RID strategies except \_\_\_\_\_.

1. combining different steps of the design process such as analyses and evaluation
2. conducting separate analyses of training needs and learning outcomes
3. developing instruction around job aides
4. using shortcuts, such as existing records for needs assessment

Answer: b

Difficulty: medium

Learning objective: 3

11.9. Which of the following is not a common RID strategy?

1. Ensuring that instructional content and process are developed simultaneously
2. Adapting existing materials
3. Developing a learning system instead of an instructional system
4. Combining steps of the process

Answer: a

Difficulty: medium

Learning objective: 3

11.10. Which of the following is a trend in the delivery of training?

1. Managers demanding longer courses
2. Managers demanding that training courses include excessive expert content
3. Managers reducing the number of on-the-job training opportunities
4. Managers being asked to act as coaches to supplement training

Answer: d

Difficulty: medium

Learning objective: 1

11.11 Which of the following statements is true about demands of managers?

1. Managers are demanding that training departments increase the number of courses offered without directly addressing a business issue
2. Managers are demanding shorter courses
3. Managers are demanding more detailed curricula
4. Managers are demanding greater competition among trainees

Answer: b

Difficulty: medium

Learning objective: 1

11.12. Social network analysis \_\_\_\_\_.

1. is an application that suggests how to modify behavior and be more responsive to team members
2. provides realistic, life-sized holographic projections
3. identifies performance gaps or deficiencies and examines training as one possible solution
4. is a mapping tool that can be used to reduce costs and improve communications within an organization

Answer: d

Difficulty: medium

Learning objective: 1/2

11.13. Anderson Enterprises, an advertising firm, planned to make its communication process more effective and interviewed employees to determine the flow of information in the organization. Flow charts were then created that depicted the way information was passed on to every member in the team. They also prepared maps to show interactions among different departments. Which of the following approaches is being used?

1. Social network analysis
2. Just-in-time learning
3. Rapid instructional design (RID)
4. Cloud computing approach

Answer: a

Difficulty: medium

Learning objective: 1/2

11.14. \_\_\_\_\_ refers to learning that occurs on the job as needed.

1. Augmented learning
2. Just-in-time learning
3. Mobile learning
4. Adventure learning

Answer: b

Difficulty: easy

Learning objective: 4

11.15. \_\_\_\_\_ refers to learning from others through face-to-face interactions.

1. Transformative learning
2. Experimental learning
3. Social learning
4. Discovery learning

Answer: c

Difficulty: easy

Learning objective: 1/2

11.16. Which of the following involves collaboration and non-learning technologies, such as microblogs, and is integrated with knowledge management?

1. Transformative learning
2. Embedded learning
3. Experimental learning
4. Adventure learning

Answer: b

Difficulty: easy

Learning objective: 4

11.17. The difference between formal training programs and embedded learning is that \_\_\_\_\_.

* 1. embedded learning focuses more on long-term competencies
  2. formal training programs include task-specific content
  3. formal training programs focus on providing short-term knowledge
  4. embedded learning focuses on learning that is integrated with knowledge management and occurs on the job as needed

Answer: d

Difficulty: medium

Learning objective: 4

11.18. Which of the following statements about embedded learning is true?

1. It excludes social learning.
2. It includes real-time content and simulations that are accessible during work and real-time collaboration in virtual workspaces.
3. It is independent of knowledge management.
4. It focuses heavily on employee development.

Answer: b

Difficulty: easy

Learning objective: 4

11.19. Increased use of contingent workers and increased flexibility to meet customer needs will lead training departments to have a greater focus on \_\_\_\_\_.

1. traditional training methods
2. lecture and presentation methods
3. expert systems and electronic performance support systems
4. employee development

Answer: c

Difficulty: medium

Learning objective: 1/2

11.20. Which of the following is true of high-performance work systems?

1. These systems place the least importance on interpersonal skills.
2. Employees need to focus on developing technical skills only.
3. Total quality management has no relevance to such systems.
4. Employees should understand the entire service and production system.

Answer: d

Difficulty: medium

Learning objective: 1/2

11.21. \_\_\_\_\_ tracks learning activities, and costs, and relates learning results to product revenues or sales goals.

1. A learning management system (LMS)
2. An embedded learning system
3. Social learning
4. Cloud computing

Answer: a

Difficulty: medium

Learning objective: 1/2

11.22. Which of the following statements is not true regarding learning management systems (LMSs)?

1. LMSs provide training administration, development tools, and online training.
2. LMSs are moving from tracking training to a broader focus on talent management.
3. LMSs can include performance evaluations which can be used to identify skill gaps.
4. LMSs are a key component of augmented reality.

Answer: d

Difficulty: medium

Learning objective: 1/2

11.23. Which of the following is a feature of cloud computing?

1. It provides access to applications and information solely through personal computers.
2. It restricts access to large company databases.
3. It can be delivered on-demand via the Internet or restricted to use by a single company.
4. It restricts access to tools for workforce analytics.

Answer: c

Difficulty: medium

Learning objective: 6

11.24. Which of the following statements is false regarding cloud computing?

1. Cloud computing allows employees to more easily access information and training.
2. Cloud data can be used to store learning data in a “warehouse.”
3. Cloud computing allows for greater artificial intelligence.
4. Cloud computing allows for greater access to workforce analytics tools.

Answer: c

Difficulty: easy

Learning objective: 6

11.25. Which of the following is not one of the major skills and competencies discussed in the chapter needed for trainers to be successful now and in the future?

1. Designing learning space and content in technology-driven environments
2. Use of multimedia tools
3. Delivering and packaging training in different formats for beginners and experts
4. Repurposing live instruction to online instruction

Answer: d

Difficulty: medium

Learning objective: 2

**TRUE-FALSE**

11.26. Training serves an important role in helping organizations achieve sustainability goals.

Answer: true

Difficulty: easy

Learning objective: 5

11.27. The use of social media and other new technologies will decrease in future as a result of the increasing costs of these technologies.

Answer: false

Difficulty: easy

Learning objective: 1/2

11.28. It is likely that online technology will soon replace all live instruction.

Answer: false

Difficulty: easy

Learning objective: 1/2

11.29. Gamification refers to a live direct or indirect view of a physical, real-world environment whose elements are supplemented by computer-generated sound, video, or graphics.

Answer: false

Difficulty: medium

Learning objective: 1/2

11.30. Artificial intelligence is thought to soon replace jobs requiring complex decision-making processes.

Answer: false

Difficulty: medium

Learning objective: 1/2

11.31. The content of training simulations is constant and therefore cannot be altered to suit global audiences.

Answer: false

Difficulty: easy

Learning objective: 1/2

11.32. Virtual team members need training only in technical skills and competencies.

Answer: false

Difficulty: easy

Learning objective: 1/2

11.33. Because of new technology, trainers are being challenged in how they design learning activities.

Answer: true

Difficulty: easy

Learning objective: 2

11.34. One principle of rapid instructional design (RID) is that the development of instructional content and process must be in close coordination.

Answer: false

Difficulty: medium

Learning objective: 3

11.35. In rapid instructional design (RID), the resources that are devoted to design and delivery of instruction cannot be reallocated.

Answer: false

Difficulty: medium

Learning objective: 3

11.36. In rapid instructional design (RID), it is acceptable to skip steps in the instructional design process.

Answer: true

Difficulty: medium

Learning objective: 3

11.37. Managers are demanding training courses that are longer and that focus on holistic development.

Answer: false

Difficulty: medium

Learning objective: 1

11.38. Social networking platforms will likely not become a part of learning management systems.

Answer: false

Difficulty: easy

Learning objective: 1/2

11.39. Advances in neuroscience research have demonstrated that long-term information recall is enhanced when individuals learn material all at once, contradicting previous findings.

Answer: false

Difficulty: medium

Learning objective: 1/2

11.40. Only employees contribute funds to life-long learning accounts.

Answer: false

Difficulty: easy

Learning objective: 1

11.41. Employees are allowed to take funds with them from life-long learning accounts if they leave a company.

Answer: true

Difficulty: easy

Learning objective: 1

11.42. A key assumption of the performance analysis approach is that training is the primary solution to most business problems.

Answer: false

Difficulty: easy

Learning objective: 1

11.43. Research has demonstrated that social learning enhances social capital, but not intellectual capital.

Answer: false

Difficulty: easy

Learning objective: 2

11.44. Cloud computing gives companies and employees access to information through smart phones and tablets.

Answer: true

Difficulty: medium

Learning objective: 6

11.45. Cloud computing permits employees to access formal training programs only from a specific educational institution.

Answer: false

Difficulty: easy

Learning objective: 6

11.46. The key decision for companies is not whether to outsource training but rather how much training to outsource.

Answer: true

Difficulty: medium

Learning objective: 1/2

SHORT ANSWER-ESSAY

11.47. Discuss how training program design is being influenced by neuroscience research.

Advances in neuroscience are increasing researchers’ ability to study the brain and its functioning. These advances are leading to a better understanding of how we learn, which can be used to design more effective training. For example, researchers have shown that whether an idea can be easily recalled is linked to the strength of activating the hippocampus, located in the lower section of the brain, during a learning task. The stronger the hippocampus is stimulated during learning, the greater the recall of the idea. Research on the hippocampus has identified the conditions that are necessary for learning to occur, which include attention, generation, emotion, and spacing.

From a training perspective, learners have to eliminate distractions, they need to make their own connections to new ideas, and they need some but not overwhelming emotional stimulation. Long-term recall is better when we learn information over several different time periods rather than all at once.

Difficulty: medium

Learning objective: 2

11.48. Describe what is meant by rapid instructional design (RID), and provide examples of RID strategies.

Rapid instructional design (RID) is a group of techniques that allows training to be built more quickly. It modifies the traditional training design model that consists of needs analysis, design, development, implementation, and evaluation.

There are two important principles in RID:

* The instructional content and process can be developed independently of each other.
* Resources that are devoted to design and delivery of instruction can be reallocated. Design includes everything that happens before the training experience. Delivery is what happens during the training experience.

Some common examples of RID strategies include:

* developing a learning system instead of an instruction system
* using shortcuts where appropriate
* combining or skipping different steps of the process
* adapting existing materials
* developing instruction around job aids and performance support

Difficulty: medium

Learning objective: 3

11.49. Explain the term just-in-time learning (embedded learning). Why will it be increasingly prevalent in the future?

Just-in-time learning (or embedded learning) refers to learning that occurs on the job as needed. It involves collaboration and non-learning technologies such as instant messaging. Just-in-time learning products include task-specific, real-time content and simulations that are accessible during work. It also involves real-time collaboration in virtual workspaces. Rapid adoption of wireless technology is connecting employees directly to business processes.

Just-in-time learning may become increasingly prevalent in the future because companies can no longer have employees attend classroom instruction or spend hours on online learning that is not directly relevant to current job demands. Formal training programs and courses will not disappear but will focus more on the development of competencies that can benefit the employee and company over the long term. Just-in-time learning will focus on providing the learning that the employee needs to complete key job tasks.

Difficulty: medium

Learning objective: 4

11.50. What are wearables? Discuss how they might be useful for training and learning.

Outside of the training context, a *Fitbit* is an example of a “wearable” that allows individuals to track their daily fitness activity. Wearables are just beginning to be developed for training and performance support solutions. For example, *Wearable Intelligence* provides smart eyewear and camera technology that gives employees hands-free, voice activated access to procedures and checklists, live access to experts, the opportunity to review best practice videos, and real-time notifications.

This technology may be useful for training in many respects.

* It can provide access to live experts.
* It can be used to easily access resources and reference materials.
* It can help monitor transfer of training.
* It can be used to assess training needs.
* It can be used to track compliance with training—whether employees have completed specific training modules.

Difficulty: medium

Learning objective: 2

11.51. Describe the skills and competencies discussed in the chapter that are needed for trainers to be successful now and in the future.

* Matching training content and methods to the local culture of the workplace
* Designing learning space and content in technology-driven environments
* Use of multimedia tools
* Delivering and packaging training in different formats for beginners and experts
* Use of assessments to determine trainees learning styles
* Developing search-and-identify technologies so employees can find information when they need it
* Facilitating learning and staying in touch with employees, managers, and business units for their learning needs
* Being a change agent
* Developing learning that is integrated with the job
* Integrating social media into learning
* Identifying root causes of job and business problems

Difficulty: medium

Learning objective: