# Instructor Manual

Mike Aamodt, Industrial/Organizational Psychology: An Applied Approach, 9e, 2023, 9780357658345; Chapter 8: Lecture Guide Designing and Evaluating Training Systems

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## Purpose and Perspective of the Chapter

This chapter is designed to introduce a student to the concept of training systems. Students will learn how to design training systems and evaluate the effectiveness of a training program.

## Cengage Supplements

The following product-level supplements provide additional information that may help you in preparing your course. They are available in the Instructor Resource Center.

* Transition Guide (provides information about what’s new from edition to edition)
* Instructor Manual (contains outlines, suggested activities, and resources for instructor use in the course)
* PowerPoint (provides text and image-based lectures with active learning activities)
* Test Bank (contains assessment questions and problems)
* Guide to Teaching Online (provides technological and pedagogical considerations and resources for teaching online)
* Workbook (contains exercises to help students apply what they’ve learned)
* Stats Primer (brief guide on understanding statistics)

## Chapter Objectives

The following objectives are addressed in this chapter:

08.01 Conduct a training needs analysis.

08.02 Explain the various training methods.

08.03 Develop a training program.

08.04 Apply the psychological theories behind successful training.

08.05 Evaluate the effectiveness of a training program.

## Complete List of Chapter Activities and Assessments

|  |  |  |  |
| --- | --- | --- | --- |
| Chapter Objective | PPT slide | Activity/Assessment | Duration |
| 08.01 Conduct a training needs analysis. | 6-25  Workbook  13-14  Workbook  15-17 | Exercise 8.1: Task Analysis  Exercise 8.2: Person Analysis | 10 minutes  10 minutes |
| 08.02 Explain the various training methods. | 26-34 |  |  |
| 08.03 Develop a training program. | 4-5  35-61  41  47  55 | Activity: Discussion  Activity: Discussion  Activity: Discussion | 5 minutes  5 minutes  5 minutes |
| 08.04 Apply the psychological theories behind successful training. | 62-65 |  |  |
| 08.05 Evaluate the effectiveness of a training program. | 66-73  Workbook  (70-71)  Workbook  (72-73) | Exercise 8.3  Evaluating Training Programs: 1  Exercise 8.4  Evaluating Training Programs: 2 | 10 minutes  10 minutes |
| All objectives | 2  74  75-76  77 | Icebreaker  Activity: Discussion  Activity: Discussion  Self-Assessment | 10 minutes  10 minutes  10 minutes  10 minutes |

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## Key Terms

**Training:** A planned effort by an organization to facilitate the learning of job-related behavior on the part of its employees.

**Needs analysis:** The process of determining the training needs of an organization.

**Organizational analysis:** The process of determining the organizational factors that will either facilitate or inhibit training effectiveness.

**Person analysis:** The process of identifying the employees who need training and determining the areas in which each individual employee needs to be trained.

**Performance appraisal score:** A rating representing some aspect of an employee’s work performance.

**Surveys:** Questionnaires asking employees about the areas in which they feel they need training.

**Skill test:** A test that measures an employee’s level of some job-related skill.

**Knowledge test:** A test that measures the level of an employee’s knowledge about a job-related topic.

**Case study:** A training technique in which employees, usually in a group, are presented with a real or hypothetical workplace problem and are asked to propose the best solution.

**Living case:** A case study based on a real situation rather than a hypothetical one.

**Simulation:** An exercise designed to place an applicant in a situation that is similar to the one that will be encountered on the job.

**Virtual reality:** Any three-dimensional digital simulation that can imitate a physical presence.

**Role-play:** A training technique in which employees act out simulated roles.

**Behavior modeling:** A training technique in which employees observe correct behavior, practice that behavior, and then receive feedback about their performance.

**Massed practice:** Concentrating learning into a short period of time.

**Microlearning:** Training programs that are only a few minutes in length.

**Asynchronous technologies:** Distance learning programs in which employees can complete the training at their own pace and at a time of their choosing.

**Synchronous technologies:** Distance learning programs that require employees to complete the training at the same time and at the same pace although they may be in different physical locations.

**Interactive video:** A training technique in which an employee is presented with a videotaped situation and is asked to respond to the situation and then receives feedback based on the response.

**Programmed instruction:** A training method in which employees learn information at their own pace.

**Gamification:** The application of game-like elements to traditional assessments.

**Webinar:** Short for “web seminar,” an interactive training method in which training is transmitted over the Internet.

**Webcast:** A noninteractive training method in which the trainer transmits training information over the Internet.

**Blog:** A website in which the host regularly posts commentaries on a topic that readers can respond to.

**Wiki:** A collection of web pages in which users can create web pages on a topic and readers can freely edit those pages.

**Listserv:** A program that automatically distributes e-mail messages to a group of people who have a common interest.

**Modeling:** Learning through watching and imitating the behavior of others.

**Job rotation:** A system in which employees are given the opportunity to perform several different jobs in an organization.

**Cross-training:** Teaching employees how to perform tasks traditionally performed by other employees.

**Apprentice training:** A training program, usually found in the craft and building trades, in which employees combine formal coursework with formal on-the-job training.

**Pass-through programs:** A formal method of coaching in which excellent employees spend a period of time in the training department learning training techniques and training employees.

**Mentor:** An experienced employee who advises and looks out for a new employee.

**Skill-based pay:** Compensating an employee who participates in a training program designed to increase a particular job-related skill.

**Feedback:** Providing employees with specific information about how well they are performing a task or series of tasks.

**Negative feedback:** Telling employees what they are doing incorrectly in order to improve their performance of a task.

**Transfer of training:** The extent to which behavior learned in training will be performed on the job.

**Overlearning:** Practicing a task even after it has been mastered in order to retain learning.

**Pretest:** A measure of job performance or knowledge taken before the implementation of a training program.

**Posttest:** A measure of job performance or knowledge taken after a training program has been completed.

**Solomon four-groups design:** An extensive method of evaluating the effectiveness of training with the use of pretests, posttests, and control groups.

**Employee reactions:** A method of evaluating training in which employees are asked their opinions of a training program.

**Employee learning:** Evaluating the effectiveness of a training program by measuring how much employees learned from it.

**Formative test:** A test given during training to determine if a trainee is learning the material.

**Summative test:** A test given at the end of a training program to evaluate the success of the training program.

**Application of training:** Measurement of the effectiveness of training by determining the extent to which employees apply the material taught in a training program.

**Business impact:** A method of evaluating the effectiveness of training by determining whether the goals of the training were met.

**Return on investment (ROI):** The amount of money an organization makes after subtracting the cost of training or other interventions.

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## What's New in This Chapter

The following elements are improvements in this chapter from the previous edition:

* Updated terms throughout chapter (e.g., video clip rather than DVD)
* New discussion on the effect of the COVID-19 pandemic on employee training
* New discussion of virtual reality
* Enhanced discussion of virtual training
* New discussion of microlearning
* New discussion of gamification
* Enhanced discussion of employee reactions to training
* Enhanced discussion of measuring employee learning

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## Chapter Outline

*In the outline below, each element includes references (in parentheses) to related content. "CH.##” refers to the chapter objective; “PPT Slide #” refers to the slide number in the PowerPoint deck for this chapter (provided in the PowerPoints section of the Instructor Resource Center). Introduce the chapter and use the Ice Breaker in the PPT if desired, and if one is provided for this chapter. Review learning objectives for Chapter 8. (PPT Slide 3).*

1. Developing a training program continued (08.03, PPT Slide 4)
   1. Money spent on training
   2. Training steps (PPT Slide 5)
2. Conducting a training needs analysis (08.01, PPT Slide 6)
   1. What is a training need? (PPT Slide 7)
      * Types of training needed
      * Learning objectives
      * Development of criteria
   2. Types of needs analysis (PPT Slide 8)
      * Organizational analysis (PPT Slide 9)
        1. Economic analysis
        2. Organizational climate (management support)
        3. Is the program practical? (PPT Slide 10)
      * Task analysis (PPT Slide 11)
        1. Identifies how tasks are learned
        2. **Example**: Task analysis (PPT Slide 12)
      * **Workbook Exercise 8**.**1: Task Analysis** (PPT Slide 13)
      * Person analysis (PPT Slide 14)
        1. **Workbook Exercise 8.2 Person Analysis** (PPT Slide 15-17)
      * **Example**: Critical Incidents (PPT Slide 18)
   3. Establishing goals and objectives (PPT Slide 19)
      * What do you want to accomplish: (PPT Slide 20)
        1. Knowledge
        2. Skill
        3. Motivation
        4. Appreciation
      * What goals should state (PPT Slide 21)
        1. Concrete, attainable
      * Properly written objective statements (PPT Slide 22)
      * **Example**: Goal statement (PPT Slide 23-25)
3. Explaining the various training methods (08.02, PPT Slide 26)
   1. Lectures (PPT Slide 27)
      * Classroom training
      * Distance learning
   2. Creating handouts (PPT Slide 28)
      * Considerations
      * What to include in handouts?
   3. Choosing the best training method (PPT Slide 29-30)
      * On the job training
      * How long does it take to prepare? (PPT Slide 31)
      * Classroom training options (PPT Slide 32)
      * Supplementing lectures with: (PPT Slide 33)
        1. Case studies
        2. Simulations
        3. Role play
      * Motivating Employees to Attend Training (PPT Slide 34)
4. Developing a training program continued (08.03)
   1. Delivering the training (PPT Slide 35)
   2. Initial decisions (PPT Slide 36)
      * Who will conduct the training?
      * Where will it be held?
        1. Size of room (PPT Slide 37)
        2. Seating arrangement
        3. Physical aspects (PPT Slide 38)
        4. Types of chairs and tables
   3. Length of training (PPT Slide 39)
   4. Preparing for classroom training (PPT Slide 40)
   5. **Activity**: Discussion (PPT Slide 41)
   6. The introduction (PPT Slide 42)
      * Who makes the introduction? (PPT Slide 43)
      * Introducing someone (PPT Slide 44)
   7. Making the Presentation
      * Icebreakers and energizers (PPT Slide 45-46)
      * **Activity**: Discussion (PPT Slide 47)
   8. Delivering the presentation (PPT Slide 48-49)
      * Presentation skills (PPT Slide 48-49)
      * Answering questions (PPT Slide 50)
      * Using humor (PPT Slide 51-52)
   9. Categories of distance learning (PPT Slide 53)
      * Asynchronous
      * Synchronous
      * Programmed instruction (PPT Slide 54)
        1. Concepts
        2. Formats
      * **Activity**: Discussion (PPT Slide 55)
   10. On the job training (PPT Slide 56)
       * Characteristics of the model and observer
       * Job rotation (PPT Slide 57)
       * Apprentice training (PPT Slide 58)
       * Coaching (PPT Slide 59)
       * Mentoring (PPT Slide 60)
       * Performance Appraisal (PPT Slide 61)
5. Applying the psychological theories behind successful training (08.04, PPT Slide 62)
   1. Provide incentives (PPT Slide 63)
   2. Maintain interest (PPT Slide 64)
   3. Ensuring transfer of training (PPT Slide 65)
6. Evaluating the effectiveness of a training program (08.05, PPT Slide 66)
   1. Research designs (PPT Slide 67)
   2. Solomon four-groups design (PPT Slide 68)
   3. Criteria (PPT Slide 69)
      * Content validity
      * Employee reactions and learning
      * Application of training
      * Business impact
      * ROI
   4. **Workbook Exercise 8.3:** Evaluating Training Programs: 1 (PPT Slides 70-71)
   5. **Workbook Exercise 8.4:** Evaluating Training Programs: 2 (PPT Slides 72-73)
   6. **Activity:** Discussion (PPT Slide 74, 10 minutes)
   7. **Activity:** Discussion: Ethics (PPT Slide 75-76, 10 minutes)

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## Discussion Questions

You can assign these questions several ways: in a discussion forum in your LMS; as whole-class discussions in person; or as a partner or group activity in class.

1. Discussion: Training Forms (PPT Slide 41, 5 minutes)
   1. Are case studies and scenarios an effective form of training?
2. Discussion: Icebreakers (PPT Slide 47, 5 minutes)
   1. Question: What icebreakers have you seen that you liked? Disliked?
3. Discussion: Distance Learning (PPT Slide 55, 5 minutes)
   1. Question: Who has taken a distance learning course? What did you think?
4. Case Study: Pal’s Sudden Service (PPT Slide 74)
   1. Case study can be used as supplemental in-class discussion.
5. Discussion: Ethics (PPT Slide 75-76)
   1. Students will discuss questions listed concerning ethics.
6. Career Workshop: Audience Etiquette
   1. Career workshop can be used as supplemental in-class discussion.

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## Additional Activities and Assignments

1. **Workbook Exercise 8.1:** Needs Assessment: Task Analysis
   1. Exercise lists a job description and asks students to identify which tasks would require training.
2. **Workbook Exercise 8.2**: Needs Assessment: Person Analysis
   1. Exercise lists sample performance appraisal data for 10 employees and asks students to determine which employees require training.
      1. Answer:

|  |  |
| --- | --- |
| Employee | Training Need |
| All employees | Cross-selling |
| Dawson | Teller drawer accuracy, bank services knowledge |
| Coombs | Knowledge of customer names |
| Anderson | Customer names (perhaps) |
| Trebek |  |
| Sajak | Knowledge of bank services |
| Karn | Teller drawer accuracy |
| Eubanks | Knowledge of bank services |
| O’Hurley | Knowledge of bank services (perhaps) |
| Harvey | Needs so much training might be better to fire |
| Ludden | Knowledge of bank services, customer names |

1. **Workbook Exercise 8.3**: Evaluating Training Programs: 1
   1. Exercise lists sample performance data and asks students to determine the effectiveness of the training program.
      1. Answer:

|  |  |  |  |
| --- | --- | --- | --- |
|  | Pre-Test | Post-Test | Difference |
| No training | 71.53 | 77.00 | 5.47 |
| Training | 72.20 | 77.53 | 5.33 |

1. **Workbook Exercise 8.4**: Evaluating Training Programs: 2
   1. Exercise lists sample performance data and asks students to determine the effectiveness of the training programs.
      1. Answer:

|  |  |  |  |
| --- | --- | --- | --- |
| Trainer | Instructor Rating | Test Score | Customer Complaints |
| Leno | 4.4 | 80.6 | 1.7 |
| Carson | 3.4 | 85.1 | 1.3 |
| Parr | 3.0 | 79.7 | 0.8 |

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## Additional Resources

### Internet Resources

* <https://www.ioatwork.com/training/> I/O At Work publications on the topic of training.
* <https://trainingmag.com/> Training Magazine – Resources for Training Professionals

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## Appendix

### Generic Rubrics

Providing students with rubrics helps them understand expectations and components of assignments. Rubrics help students become more aware of their learning process and progress, and they improve students’ work through timely and detailed feedback.

Customize these rubrics as you wish. The writing rubric indicates 40 points and the discussion rubric indicates 30 points.

### Standard Writing Rubric

|  |  |  |  |
| --- | --- | --- | --- |
| **Criteria** | **Meets Requirements** | **Needs Improvement** | **Incomplete** |
| Content | The assignment clearly and comprehensively addresses all questions in the assignment.  15 points | The assignment partially addresses some or all questions in the assignment.  8 points | The assignment does not address the questions in the assignment.  0 points |
| Organization and Clarity | The assignment presents ideas in a clear manner and with strong organizational structure. The assignment includes an appropriate introduction, content, and conclusion. Coverage of facts, arguments, and conclusions are logically related and consistent.  10 points | The assignment presents ideas in a mostly clear manner and with a mostly strong organizational structure. The assignment includes an appropriate introduction, content, and conclusion. Coverage of facts, arguments, and conclusions are mostly logically related and consistent.  7 points | The assignment does not present ideas in a clear manner and with strong organizational structure. The assignment includes an introduction, content, and conclusion, but coverage of facts, arguments, and conclusions are not logically related and consistent.  0 points |
| Research | The assignment is based upon appropriate and adequate academic literature, including peer reviewed journals and other scholarly work.  5 points | The assignment is based upon adequate academic literature but does not include peer reviewed journals and other scholarly work.  3 points | The assignment is not based upon appropriate and adequate academic literature and does not include peer reviewed journals and other scholarly work.  0 points |
| Research | The assignment follows the required citation guidelines.  5 points | The assignment follows some of the required citation guidelines.  3 points | The assignment does not follow the required citation guidelines.  0 points |
| Grammar and Spelling | The assignment has two or fewer grammatical and spelling errors.  5 points | The assignment has three to five grammatical and spelling errors.  3 points | The assignment is incomplete or unintelligible.  0 points |

### Standard Discussion Rubric

|  |  |  |  |
| --- | --- | --- | --- |
| **Criteria** | **Meets Requirements** | **Needs Improvement** | **Incomplete** |
| Participation | Submits or participates in discussion by the posted deadlines. Follows all assignment. instructions for initial post and responses.  5 points | Does not participate or submit discussion by the posted deadlines. Does not follow instructions for initial post and responses.  3 points | Does not participate in discussion.  0 points |
| Contribution Quality | Comments stay on task. Comments add value to discussion topic. Comments motivate other students to respond.  20 points | Comments may not stay on task. Comments may not add value to discussion topic. Comments may not motivate other students to respond.  10 points | Does not participate in discussion.  0 points |
| Etiquette | Maintains appropriate language. Offers criticism in a constructive manner. Provides both positive and negative feedback.  5 points | Does not always maintain appropriate language. Offers criticism in an offensive manner. Provides only negative feedback.    3 points | Does not participate in discussion.  0 points |