<u>**Study objectives for PSY 3960: Behavioral Training and Teaching Strategies (Spring 2011)**</u>

*For all readings, I recommend you read the material in its entirety. Much of it is very interesting and the context will often help you understand the study objectives. Also, for all definitions and concepts I will want you prepared to recognize and produce examples, even if I have not specifically requested that in the study objectives below. Lectures may not cover all of the study objectives. This does not mean that study objective will not be tested on. I strongly recommend you memorize <u>all</u> study objectives to fluency in preparation for examinations.*

# Unit 1: Behaviorism & Project Follow Through

<u>**Readings**</u>

- *Maloney, M. (1998). Chapter 4: Is there any solution?*
- *Maloney, M. (1998). Chapter 7: Behavior analysis / behavior management.*
- *Becker, W.C, Engelmann, S., & Thomas, D.R. (1971). Unit 9: The criticism trap*
- *Potts, L., Engelmann, J.W., & Cooper, J.O. (1993). Ogden R. Lindsley and the historical development of precision teaching. (pages 185 – 186 only)*
- *Michael, J.L. (2004). Chapter 15: A behavioral perspective on college teaching.*
- *War Against Schools' Academic Child Abuse*
  - *Preface (Perspective)*
  - *Chapter 1: The Reform Cycle*

<u>**Study Objectives**</u>

1) Describe the common underlying philosophy behind the progression model of education, developmental theories such as Piaget's, discovery learning, and whole language approaches to education. Let me help: All these approaches emphasis that learning is a natural process and therefore equate anything "unnatural" with "inherently bad".

2) According to Patrick O'Neill, what is most significant factor in determining educational effectiveness? In addition, be able to name two of the other four important factors O'Neill mentions. (Maloney, Chp 4, p. 59-60)

3) Define "academic child abuse". (Maloney, Chp 4, p. 69)

4) How should one respond to the notion that the learner isn't ready to learn yet? Note that if educators cannot address this concern, it does bring up the question of the teacher's role in learning. (Maloney, Chp 7, p. 95)

5) Why does Engelmann largely view teachers as victims? (War, p. 12)

6) Be able to provide definitions for the following terms: reinforcement, punishment, extinction, shaping, stimulus generalization, stimulus discrimination, primary and secondary reinforcers, conditioned stimulus (CS), conditioned response (CR), higher-order classical conditioning (Prereq review and SAFMEDS practice material)

7) Define the "Criticism Trap". Be able to recognize and provides examples of criticism traps. (Becker, p. 111)

8) To escape the criticism trap, how should a teacher react to the misbehavior of a child? (Becker, p. 104)

9) Be able to describe the pattern of natural rates of verbal reinforcement in schools. What was the average approval rate per minute in first and second grade? What was the average approval rate per minute after third or fourth grade? What was the average approval rate per minute by high school? By the high school level, where is the primary source of reinforcement coming from? (lecture)

10) Describe the "Good Behavior Clock". What problem did it solve? What problem did it not solve? (lecture)

11) What is the name of the largest educational experiment ever conducted? What educational approach was most successful in this experiment? Know how this approach ranked in terms of reading, arithmetic, spelling, language, basic skills, academic cognitive skills, and positive self-image. (War, p. 3-5; Maloney, Chp 4, p. 65-66)

12) In general, what did the better performing models have in common? Which models did the government evaluate as successful and recommend as worthy for classroom usage? (War, p. 5, Maloney, Chp 4, p. 66)

13) What basic problem is there with having educators implement reform? (War, p. 11)

14) What is the "two-for-one" rule? (Michael, p. 212)

15) What is the main obstacle to student learning in college settings? (Michael, p. 213)

16) What two factors decide the aversiveness of a situation? Why do these factors produce the procrastination scallop? (Michael, p. 217)

17) According to Michael, what is the source of reinforcement that maintains study behavior? (Michael, p. 217)

18) What reason do many educators give for being purposely unclear? How does this undermine motivation and study behavior? (Michael, p. 218)

19) What does the acronym SAFMEDS stand for? SAFMEDS cards should not supply irrelevant, supplement hints. Give some examples of these kinds of hints. What two aspects of performance should you build up while using SAFMEDS? (Potts, p. 185; lecture)

20) Research with SAFMEDS has debunked several myths about learning. I want you to memorize the first and sixth myths, plus one more additional one for the exam. (Potts, p. 185)

# Unit 2: Direct Instruction

**Readings**

- *Slocum, T.A. (2004). Chapter 6: Direct Instruction: The big ideas*
- *Hummel, J.H., Venn, M.L., & Gunter, P.L. (2004). Chapter 7: Teacher-made scripted lessons.*
- *Engelmann, S., Haddox, P., & Bruner, E. (1983). Introduction to Teach Your Child to Read in 100 Easy Lessons*

**Study Objectives**

1) Explain how Direct Instruction teaches "big ideas". Let me help: Direct Instruction accomplishes this by teaching skills, concepts, generalizations, and rules that allow learners to accurately respond to new material never directly taught. I'll provide a couple of examples in class. Be able to apply this kind of strategy on the exam.

2) Why are placement tests an important aspect of Direct Instruction? How often should placement levels be assessed? (Slocum, p. 88)

3) How do placement tests relate to "acting out" and other misbehavior often seen in typical classrooms? (Hummel, p. 106)

4) Why does Direct Instruction withhold exceptions to rules in early lessons? (Slocum, p. 84)

5) How does Direct Instruction implement fading to promote independence? (Slocum, p. 84)

6) The authors note that many DI programs allow 4 to 6 responses per minute during instruction and 9 to 12 per minute during practice. Why is it important that Direct Instruction lessons be so fast paced with learner responses? (Hummel, p. 106)

7) A very important component of Direct Instruction is the use of teacher's presentation books (i.e. scripted lesson plans). Who is in charge of developing these scripts? How much should teachers be supplementing / modifying scripts? What is the teacher's role in regard to the scripted lessons? How do scripted lessons help provide reinforcement? (Slocum, p. 86; lecture)

8) How do most DI program achieve high levels of active learner engagement? Give 2 reasons why it is important that this engagement be overt. (Slocum, p. 89)

9) If errors are being made by individual children in a group, how long does the teacher wait before correcting? What percentage of errors are corrected? How do DI teachers avoid singling out children for making a mistake? (lecture)

10) Describe the components of the "Model – Lead – Test". Be able to apply this method if I give you an instructional task to be taught. (Slocum, p. 90-91; lecture)

11) When using the "Teach Your Child to Read in 100 Easy Lessons", about how many hours should it take to complete the book? (Engelmann, p. 7-8)

12) According to the text, of the four most common basal readers, how many of them included specific instructions on how to correct errors? (Engelmann, p. 10)

13) What are two problems with labeling children as having a "learning disability"? (Engelmann, p. 12)

14) What is orthography? What is the problem with the traditional English orthography? How does "100 Easy Lessons" solve this problem? How are silent letters presented (in early lessons at least)? (Engelmann, p. 12-13)

15) Why does Distar avoid teaching letter names during early lessons? (Engelmann, p. 14)

16) Why is it important to not skip lessons even if the child appears likely to do later lessons with ease? (Engelmann, p. 20)

17) What is the most effective form of reinforcement you can use with children learning to read? (Engelmann, p. 21)

18) Why should you not use lengthy reinforcement or use reinforcement after every task? (Engelmann, p. 22)

19) Memorize and be ready to apply the Distar script conventions. Be able to recognize what the teacher is supposed to say and do and what the child is supposed to say and do. (Engelmann, P. 26)

# Unit 3: Precision Teaching

## Readings

- *Potts, L., Engelmann, J.W., & Cooper, J.O. (1993). Ogden R. Lindsley and the historical development of precision teaching.*
- *Maloney, M. (1998). Chapter 9: Precision Teaching*
- *War Against Schools' Academic Child Abuse*
  - *Chapter 10: Math Madness*

## Study objectives

1) Precision teaching is primarily what type of system? (Potts, p. 188)

2) In general, how does the U.S. compare to countries such as Japan in terms of time allocated for instruction, classroom size, percentage educated, and years of training for teachers. You don't have to memorize the specific numbers. (War, p. 107)

3) When their kids would fail, who or what do Japanese teachers typically blame? Who or what do U.S. teachers typically blame? (War, p. 107)

4) Be able to define the following: frequency and rate. (Maloney, p. 119)

5) What basic data is used to make decisions in Precision Teaching? (Maloney, p. 119)

6) What is fluency? How does fluency differ from accuracy? (Maloney, p. 134)

7) How are fluency aims established? (lecture)

8) Be able to describe the study Haughton did regarding fluency and prerequisite skills. Your description should include: the trouble teachers were having with reinforcing complex skills, how elementary skills had been assessed initially, how assessment of elementary skills changed, and the effect this had on complex skills. (lecture)

9) What is celeration? What does a steeper celeration line mean? What does a flatter celeration line mean? What is the difference between a celeration line that is accelerating versus one that is decelerating? (Potts, p. 182; lecture)

10) How might typical assessment procedures such IQ tests result in bias? Why might celeration be one of the first truly unbiased measures of aptitude? (Maloney, p. 136; lecture)

11) How many days are there on a Standard Celeration Chart? (lecture)

12) How do you determine what number to enter on the vertical axis for the Standard Celeration Chart? Be able to convert timed performance to the appropriate rate measure. (lecture)

13) How do we denote rates we want to accelerate on a Standard Celeration Chart? How do we denote rates we want to decelerate? (lecture)

14) Note that the vertical axis is a logarithmic scale (but the horizontal is not). You don't have to understand what logarithmic means, but notice that spacing differs on the vertical and horizontal scales. What is the reasoning behind this scaling? What advantage is gained by making the Chart semi-logarithmic? (Potts, p. 182; lecture)

15) On average, children in typical classrooms increase their learning by how much each year? How much do children increase their learning when their teachers chart their data? How much do children increase their learning when they chart their data themselves? (Maloney, p. 126)

16) Children have been taught to chart their own performance as young as what grade? (Maloney, p. 125)

17) Whenever you employ self-measurement, you need to be careful that people are being honest about their performance. How does Precision Teaching guard against cheating when self-charting? (Maloney, p. 126)

18) (REVIEW of Michael article) What is the "two-for-one" rule? (Michael, p. 212)

19) In most Precision Teaching classrooms, typically how much time is devoted to presenting concepts and how much time is devoted to practice and measurement? (lecture)

20) During the four year assessment at the Sacajawea School in Great Falls, MT, how many minutes per day were devoted to Precision Teaching? How many percentile points higher did the PT group score over the control group? How was the comparison between the PT and control groups unfair? Note that this unfairness provides even more evidence of PT's effectiveness. (Maloney, p. 133; lecture)

# Unit 4: Programmed & Computer-Based Instruction

**Readings**

- *Skinner, B.F. (1968). Chapter 2: The science of learning and the art of teaching.*
- *Skinner, B.F. (1968). Chapter 3: Teaching machines.*
- *Johnson online computer-based instructional modules*
- *War Against Schools' Academic Child Abuse*
    - *Chapter 6: Academic Child Abuse*
    - *Chapter 8: Effective Teaching*

**Study objectives**

1) According to Skinner, what is the most serious criticism of current classrooms? (Skinner, Chp 2, p. 17)

2) Skinner describes using readiness as an asylum for poorly performing students, teachers, and parents. Explain how the readiness argument (i.e. developmental philosophies) is used when a learner doesn't perform well on the test. What three benefits do these philosophies have for schools? (War, p. 60)

3) What is the problem with favoring vague achievements over skills? (Skinner, Chp 2, p. 18-19)

4) Describe the sorting machine philosophy. How did the philosophy used to be functional? (War, p. 58)

5) (REVIEW FROM UNIT 1) Define a conditioned stimulus (CS) and conditioned response (CR)

6) How might figures and symbols of mathematics become standard emotional stimuli? (Skinner, Chp 2, p. 18)

7) (REVIEW FROM UNIT 1) Define stimulus discrimination.

8) With regards to orientation, how are letters different from most objects a child is asked to name? (War, p. 61)

9) How is expecting the parents to work with kids on academics discriminatory? (War, p. 64)

10) Regarding the Alessi review of the diagnoses made by school psychologists: Of the 5000 problem children diagnosed, what percentage of time was the curriculum, teaching practices, and/or school administration labeled as the cause? What percentage of the time was the home environment labeled as the cause? What percentage of the time was the child labeled as the cause? (War, p. 65)

11) Describe the "Principle of Small Steps" (not named as such in the article). (Skinner, Chp 2, p. 21; lecture)

12) How might teaching machines enforce mastery learning? (Skinner, Chp 3, p. 39)

13) Besides increased feedback to the learner, teaching machines can also present increased feedback to the designer. How is this feedback improved over the feedback a lecturer, textbook writer, or maker of films receives? (Skinner, Chp 3, p. 49-50)

14) Sometimes people will argue against such programming, saying "Can you program another Mozart or another Shakespeare?" While it is true that there is no proven formula for the training or programming "geniuses", what is the fundamental weakness of this argument? (lecture)

15) How did programmed instructional textbooks attempt to induce activity on the part of the learner? How did these textbooks attempt to prevent learners from immediately receiving the correct answer? (lecture)

16) What is the problem with training teachers to be instructional designers? (War, p. 81)

17) According to Engelmann, what percentage of commercial CBI programs were in disuse within four months of purchase? What was missing in those commercial programs? (War, p. 85)

18) What was the school's reaction to the videodisc programs Engelmann developed? Describe the circularity of the school's reasoning. To describe this circularity, you need to talk about what it takes to make the program effective and what it takes to make the program acceptable. (War, p. 90-91)

19) What kind of instructional pacing is utilized in a typical group training situation? How does computer-based instruction differ? (Johnson CBI module)

20) Why is the "Peek Factor" a problem in all textbook attempts to induce active responding, even well-designed programmed instructional textbooks? (Johnson CBI module)

21) What is wrong with the "interactions" that most CBI programs offer? (Johnson CBI module)

22) Your instructor will attempt to argue to "efficient enforced demonstrative interactions" are the most important contribution of computer-based instruction. Be able to describe how CBI can be "efficient", "enforced", and "demonstrative" in the interactions. (Johnson CBI module)

23) What is meant by the instructor when he says most CBI research relies too much on social validation? What is wrong with evaluating instruction solely on the basis of social validation? (Johnson CBI module)

24) What is wrong with evaluating instruction using just "one-group pretest-posttest designs" or "untreated control group designs"? (Johnson CBI module)

25) What is CBI "racing"? What is the source of reinforcement for "racing"? How does racing undermine "efficient enforced demonstrative interactions"? (Johnson CBI module)

# Unit 5: Instructional Design

**Readings**

- *Johnson summary of Tiemann and Markle's approach to concept learning*
- *War Against Schools' Academic Child Abuse*
  - *Chapter 2: Basal Programs*
  - *Chapter 9: Theories*

**Study objectives**

1) Memorize the five basic steps for development of a well-designed instructional program. This simple (but very time consuming and difficult) process is how instructional programs such as Direct Instruction and Headsprout (next unit) were created. If you trace the development of any highly effective instructional program, you'll see similar development steps. Engelmann doesn't explicitly name the steps, so I'll provide them here:
   a. Lay out a series of activities
   b. Test with the target audience
   c. Collect data on where errors are being made
   d. Revise instructional program
   e. Continue repeating previous 3 steps until **all** learners with prerequisite skills perform well

2) How do traditional educators react to instruction developed in the manner described in the previous study objective? (War, p. 18)

3) How many of the five basic steps named above do most commercial publishers of school materials complete? (War, p. 19)

4) (REVIEW FROM UNIT 1) Define stimulus generalization and stimulus discrimination
5) What is a stimulus class? (Johnson summary)

6) From a behavioral perspective, what is meant by conceptual learning? (Johnson summary)

7) Is providing a definition sufficient to teach a concept? At minimum, what is needed to say you taught a concept? (Johnson summary)

8) What is a critical attribute? What is a variable attribute? (Johnson summary)

9) Describe the prototype approach to discovering a concept's attributes. (Johnson summary)

10) What is a close-in nonexample? (Johnson summary)

11) If given a concept with a list of critical and variable attributes, be able to construct a Minimum Rational Set of Close-In Nonexamples. (Johnson summary)

12) If given a concept with a list of critical and variable attributes, also be able to construct a Minimum Rational Set of Examples. (Johnson summary)

13) Are complete Minimum Rational Sets guaranteed to be an adequate set for instruction? How do you determine if you have an adequate set for instruction? (Johnson summary)

14) If given a concept with a list of critical and variable attributes, be able to select a pair of fully divergent examples to be used for teaching. (Johnson summary)

15) If given a concept with a list of critical and variable attributes, be able to select a pair of fully matched nonexamples. (Johnson summary)

16) Define a far-out example. If given a concept with a list of critical and variable attributes, be able to provide a far-out example. (Johnson summary)

17) How do you test whether or not you have established conceptual stimulus control? (Johnson summary)

18) If provided with a list of teaching items and test items, be able to classify whether the test items are testing for generalization, discrimination, or rote memory. (Johnson summary)

19) Describe the appropriate teaching strategy if you discover that learners are overgeneralizing or undergeneralizing. (Johnson summary)

20) (REVIEW FROM UNIT 4) Describe the "Principle of Small Steps" (not named as such in the article). (Skinner, Chp 2, p. 21; lecture)

21) What is Lean Programming? Be sure to include the two lean programming principles in your description. (Johnson summary)

# Unit 6: Generative Instruction

**Readings**

- *Christensen summary of Tiemann and Markle's approach to concept learning*
- *Epstein, R. (1993) Generativity theory and education.*
- *Epstein, R., Kirshnit, C. E., Lanza, R. P., & Rubin, L. C. (1984). 'Insight' in the pigeon: Antecedents and determinants of an intelligent performance.*
- *Johnson, K., & Street, E. M. (2004). Chapter 3: Curriculum and its sequence.*
- *Layng, T.V.J., Twyman, J.S., & Stikeleather, G. (2004). Chapter 11: Selected for success: How Headsprout Reading Basics teaches beginning reading.*
- *Whimbey, A., & Lochhead, J. (1999). Chapter 3: Problem-solving methods*

**Study objectives**

1) How does Headsprout teach to fluency? When does Headsprout begin to introduce fluency-building activities? (Layng, p. 174 & 176)

2) What kind of comprehension indicators does Headsprout utilize after each reading exercise? (Layng, p. 175)

3) How does Headsprout enforce mastery learning? (Layng, p. 176)

4) How much time and money did Headsprout spend on major research and development? During that time, how many data based program revisions were made? (Layng, p. 171 & 179)

5) Currently, Headsprout collects data on what percentage of children using the program. On average, how many correct responses does each learner give per lesson? How many correct responses per minute is that? (Layng, p. 191)

6) Besides word substitution and failure to read a word, what else does Headsprout score as errors? Note how this also relates to the concept of fluency. (Layng, p. 191)

7) How did Layng, Twyman and Stikeleather demonstrate contingency adduction? (lecture)

8) What is the peculiar difficulty in teaching analytical skill?  How can this difficulty be reduced?  Also, what does TAPS stand for? (Whimbey, 21-22; lecture)

9) List and briefly explain the methods of a good problem solver. (Whimbey, 26-27)

10) What is the role of the listener when working with a partner? (Whimbey, 28-29)

11) What does "adduction" mean and why was the term "contingency adduction" chosen over the term "adduction"? (Johnson & Street, 27)

12) What does a well designed instructional program accomplish? (Johnson & Street, 28-29)

13) How do the instructional programs designed by Morningside ensure that learners experience contingency adduction on a regular basis? (Johnson & Street, 30)

14) According to the author, what can we be certain of when something appears to be spontaneous or to come from nothing? (Epstein, 41)

15) How does Epstein define Generativity Theory? (Epstein, 41)

16) What is automatic chaining? (Epstein, 42)

17) Aside from training for creativity, how does the generativity theory lend itself to education? (Epstein 44)

18) What is the relationship between a tool, component and composite skills?  How does this relate to the recombinative process? (lecture)

19) Which pigeons were able to solve the problem?  Specifically, what did they have in common? (Epstein 61-62)

20) Why did Skinner and Epstein decide to pursue this line of research? (lecture)

21) Give an example of a principle and an example of a strategy.  Explain how each exemplifies its category. (Christensen summary)

22) What is stated within a principle? *Hint: These can be stated implicitly or explicitly. (Christensen summary)

# Unit 7: Personalized System of Instruction

**Readings**

- *Fox, E.J. (2004). Chapter 12: The personalized system of instruction: A flexible and effective approach to mastery learning.*
- *War Against Schools' Academic Child Abuse*
  - *Chapter 3: The Faint Voice of Reason*
  - *Chapter 4: California's Whole-Language Initiative*

**Study objectives**

*Part 1*

1) Many instructors believe course grades should fall within a bell curve (and will use a grading curve to force them into a bell). This kind of instructor expects what overall performance from his or her pupils? (Fox, p. 201)

2) Among the core features of PSI are self-pacing and unit mastery (notice the influence of teaching machines). Under optimal conditions, a PSI instructor should expect what overall performance from his or her pupils? Not surprisingly, this outcome would not be popular with school administrators. What grading compromise has often been utilized instead? (lecture)

3) (REVIEW FROM UNIT 1) What is the main obstacle to student learning in college settings? (Michael, p. 213)

4) (REVIEW FROM UNIT 1) What two factors decide the aversiveness of a situation? Why do these factors produce the procrastination scallop? (Michael, p. 217)

5) When PSI courses have implemented total self-pacing, what problem has often occurred? (Fox, p. 213)

6) The author lists several methods for preventing procrastination. Pick and memorize two of them. (Fox, p. 214)

7) PSI also relies heavily on allowing multiple attempts at mastery. In order to meet this requirement, what needs to be done with the assessment instrument (i.e. tests)? (Fox, p. 213)

8) How many versions of each test are recommended? (Note: the answer is not unlimited, despite the author's indication that unlimited attempts are allowed). Why aren't more versions recommended? (lecture)

9) According to the Kulik et al. review, what kind of testing frequency best stimulates student performance? (Fox, p. 213)

10) For a 15 week semester, what is the typical number of units in a PSI course? (lecture)

*Part 2*

11) About how much material does a PSI course cover in relation to a normal course? (lecture)

12) How do PSI and traditional classes compare in terms of student workloads? Note that student workload is not the same thing as amount of material covered. (Fox, p. 207)

13) Explain the difference between external and internal proctors. (lecture)

14) Explain the roles and responsibilities of grading proctors, testing proctors, and study-hall proctors. (lecture)

15) Why are lectures discouraged for course content in a PSI system? (Fox, p. 214)

16) What effect does using lectures for "motivational purposes" have on student achievement? (Fox, p. 212)

17) In many of his early studies, Taveggia had examined data from over 350 reports comparing methods of instruction between 1924 and 1965. What conclusion had Taveggia drawn about all these reports? What conclusion has Taveggia reached from examining PSI? (Fox, p. 206)

18) How many PSI articles did Kulik review? Of those articles, how many favored traditional formats over PSI? (Fox, p. 207)

19) What was the difference between PSI and traditional courses in terms of retention on exams given several months after the end of a course? (Fox, p. 207)

20) What percentage of students indicate a preference for PSI courses over traditional classes? (lecture)

*Part 3*

21) Despite being an online course, student answers are still evaluated by human proctors in a CAPSI course. Why? How are proctors selected? (lecture)

22) What criteria did student answers have to meet to pass an exam? (lecture)

23) What percentage of proctor feedback was free from any errors in a CAPSI course? (lecture)

24) What kind of point system was utilized to motivate proctors? Be sure to mention both the rewards and penalties, as well as why points were valuable. (lecture)

25) Name at least two ways that CAPSI can guard against cheating. (lecture)

26) New Zealand is often cited by whole language advocates because they 1) use whole language and 2) have the "highest" literacy rate of any nation. What are the two serious problems with using the New Zealand data? (War, p. 27)

27) From a whole language perspective, how is language acquired? From the same perspective, how is language not acquired? What are a couple of common whole language approaches to teaching language? (War, p. 28)

28) Engelmann once ran a test on children who had been taught using the whole language method. His test involved four reading selections, each with an illustration and text. Summarize the performance of the children when the illustration and the text matched and their performance when the illustration and the text didn't match. (War, p. 23-24)

29) According to Kenneth Goodman, how do stories, pages, paragraphs, sentences, words, and letters compare in terms of reading ease? What problem is there with this assertion? (War, p. 30)

30) Why is it that no natural hierarchy has been discovered for reading? Does it follow then that reading programs should be un-hierarchical? (War, p. 39)

31) Be able to recognize examples of whole language versus skill-based approaches to language training. (lecture)

# Unit 8: Performance-Based Instruction

**Readings**

- *Brethower, D., & Smalley, K. (1998). Chapter 2: Performance-based instruction on the job.*
- *Brethower, D., & Smalley, K. (1998). Chapter 9: Transfer of training: Linking to what happens before and after.*
- *Daniels, A. C. (2000). Chapter 21: Accelerated learning: Teaching more with less*
- *Lindsley, O.R. (1992). Why aren't effective teaching tools widely adopted?*
- *War Against Schools' Academic Child Abuse*
    - *Chapter 13: How Teacher Colleges Guarantee Failure*
    - *Chapter 14: Systemic Change*
    - *Chapter 15: How Can We Get There from Here?*
    - *Chapter 16: You*

## Study objectives

1) Be able to define guided observation, guided practice, and demonstration of mastery. (Brethower, Chp 2, p. 16-19)

2) If given a job description, explain how a new employee should be trained using the basic procedure for performance-based instruction. (Brethower, Chp 2, p. 18-19)

3) According to the authors, how high should mastery criteria be? (Brethower, Chp 2, p. 21)

4) Why aren't expert performers always good to select as trainers? (Brethower, Chp 2, p. 22)

5) Brethower and Smalley begin detailing how training can only be effective if there are multiple levels of support. Essentially they are advocating for a systems analysis approach for training (Brethower is one of the more influential figures in systems analysis). Systems analysis basically involves the notion that if you want to make an improvement in some part of an organization (such as training); you have to monitor and change several parts of the organization. Otherwise, the improvement is very unlikely to have a long-term impact. Engelmann makes similar recommendations when discussing how to change educational practices. According to Brethower and Smalley, what are the seven key linkages one must attend for training to have a lasting impact? (Brethower, Chp 9, p. 108, 113-114)

6) According to Engelmann, how should responsibilities and accountabilities be aligned for students, teachers, principals, trainers, and assistant superintendents? Notice that under this arrangement, just blaming students, teachers, or parents for poor student performance is not an acceptable assessment. (War, p. 171)

7) According to Engelmann, the base salary of principals and trainers should be contingent upon what? What should happen to teachers who meet projections? What should happen to teachers who exceed minimum expectations? (War, p. 172-173)

8) What kind of material should be minimized during training? What kind of material should be emphasized? Learner products should be compared against what when evaluating instructional

content? (Brethower, Chp 9, p. 108)

9) How do instructional designers form linkages to increase the odds that what is learned during instruction is actually used on the job? (Brethower, Chp 9, p. 107)

10) Richard Feynman tells an interesting story that illustrates how details are generally ignored by the educational establishment. The story took place when Feynman was serving on a commission for the California State Board of Education. What was wrong with the math textbook the commission members received? How many of the ten members gave the book a rating of "above average"? (lecture)

11) According to many educators learning should be fun and easy, and therefore discipline and regular practice should be avoided. Lindsley disagrees with this notion. According to him, which part of learning is fun and what part of learning is stressful and painful? (Lindsley, p. 22-23)

12) How do most teacher-training programs characterize skill-based, scientific approaches to instruction? According to these programs, teachers only need to be equipped with what? (War, p. 156)

13) Systematic approaches to instruction (such as the type taught in this course) are often dismissed as "assembly line" approaches, with the implication that this is a very bad thing. However, there are at least 5 very beneficial aspects of assembly lines that educators would do well to adopt. For the exam, be able to name at least three of them. (War, p. 161-163)

14) Why does Lindsley consider it irresponsible to continue investing public funds in educational research? How did Project Follow Through demonstrate that increasing school funding will not fix education? (Lindsley, p. 21; War, p. 177)

15) What does the story of the roofing partners illustrate regarding the general public? (Lindsley, p. 23)

16) Describe the differences in terms of accountability between sports and education with regard to both performers and teachers/coaches. (Lindsley, p. 23, 25-26)

17) Why are Sesame Street and other similar programs considered very poor education? (Lindsley, p. 24-25)

18) Memorize the six basic restrictions that school districts must honor to promote significant reform. (War, p. 180-181)

19) Why should new educational approaches not be tested with a school district's best teachers? (War, p. 185)

20) Much of Engelmann's recommendation for the average individual to bring about reform can be summarized as "be a nuisance". Why will this approach work with schools and school administrations? (War, p. 192)