

REGISTERED BEHAVIOR TECHNICIAN TRAINING



SCHEDULES OF REINFORCEMENT

SPEECH THERAPY • OCCUPATIONAL THERAPY • PHYSICAL THERAPY • BEHAVIORAL • PSYCHOLOGY

Making a Difference in Children's Lives!

TASK LIST ITEMS

- A-1, A-2, A-6

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LEARNING OBJECTIVES

- Define schedules of reinforcement
- Define, compare and contrast continuous and intermittent schedules
- Define and apply fixed ratio (FR), variable ratio (VR), fixed interval (FI) and variable interval (VI) schedules
- Define, compare and contrast interval and ratio schedules
- Define, compare and contrast fixed and variable schedules
- Identify and explain the most powerful schedule of reinforcement

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SCHEDULES OF REINFORCEMENT

Precise rules that are used to present (or remove) reinforcers or punishers following a specified operant (learned) behavior. These rules are defined in terms of the time and/or number of responses required to present/ remove the reinforcer/punisher.

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CONTINUOUS REINFORCEMENT

- Provides reinforcement for every occurrence of the target behavior
- Used to strengthen novel behaviors that are being taught and a new skill is being acquired
- Dense schedules of reinforcement aid in the learning process because the new behavior will now be associated with reinforcement

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- Example video

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ASR #1

A continuous schedule of reinforcement

- A. Reinforces a learning constantly even if a target behavior doesn't occur
- B. Reinforces some, but not all occurrences of a target behavior
- C. Reinforces all instances of a target behavior
- D. Continually withholds reinforcement

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ASR #2

Continuous schedules of reinforcement are best for:

- A. Learners acquiring brand new/ novel skills
- B. Learners who have already mastered a skill
- C. Decreasing a problem behavior
- D. All of the above

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INTERMITTENT SCHEDULES OF REINFORCEMENT

- This type of reinforcement schedule is when some but not all occurrences of the behavior are reinforced
- They are the middle ground between continuous schedules and extinction
- These are used for maintaining behaviors that are now in the person's repertoire
- Aids in fading from artificial to natural reinforcement

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ASR #3

Intermittent schedules of reinforcement:

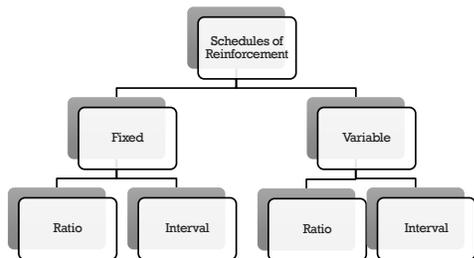
- A. Reinforce every occurrence of a target behavior
- B. Decrease a behavior
- C. Put a behavior on extinction
- D. Reinforce some, but not all occurrences of a behavior

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FOUR BASIC SCHEDULES OF INTERMITTENT REINFORCEMENT

- Fixed Ratio
- Variable Ratio
- Fixed Interval
- Variable Interval

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FIXED RATIO SCHEDULES

Fixed ratio schedules are reinforcement schedules where a response is reinforced after a specific number of responses

Fixed=Constant/set criteria

Ratio= A certain number of occurrences of the behavior that must occur before it produces reinforcement

Must be the **correct** response

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ASR #4

A fixed ratio schedule of reinforcement is when a response is reinforced after a _____ number of _____.

- A. Varied/ reasons
- B. Constant/ occurrences
- C. Variable/ occurrences
- D. Constant/ reasons

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FIXED RATIO SCHEDULE EXAMPLES

- Wallace works at a used car lot. He gets paid every time he sells a car.
- Students in a classroom receive a prize after they read 10 books.
- Jenna works in a factory making bikes. She gets \$100 every time she finishes a bike.

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FIXED RATIO EXAMPLE

- Video example

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VARIABLE RATIO SCHEDULES

- Variable Ratio schedules are schedules in which the criteria for gaining access to reinforcement is variable/changing
- The average/ mean of **CORRECT** responses

Variable= Changing

Ratio= Number of occurrences of the target behavior before response produces reinforcement

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VARIABLE RATIO EXAMPLES

- A slot machine pays out ON AVERAGE 50 pulls
- An employee gets random bonuses throughout the work year
- Billy gets a piece of candy ON AVERAGE 10 times he engages in washing the dishes

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VARIABLE RATIO EXAMPLE

• Video Example

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ASR #5

A variable ratio schedule of reinforcement reinforces a behavior after a(n) _____ number of correct response.

A. Unknown
B. Constant
C. Random
D. Average/ varied

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ASR #6

PJ works at a restaurant as a server. He gets very large tips from some of his customers occasionally when he does an outstanding job. What type of schedule of reinforcement is this?

A. Continuous
B. Fixed ratio
C. Variable ratio
D. Not enough information given

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ASR #7

You are working with a client on a new skill. You reinforce them every time they respond correctly. Which schedule of reinforcement is this?

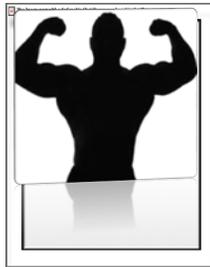
- A. Variable ratio
- B. Constant
- C. Continuous
- D. Fixed ratio
- E. C and D only

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VARIABLE RATIO
SCHEDULE

The **Strongest** schedule of reinforcement

Leads to the highest performance



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ASR #8

True or False

Variable ratio schedules of reinforcement are the strongest schedule of reinforcement and lead to the highest performance

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FIXED INTERVAL SCHEDULES

A fixed interval schedule is when a specific amount of time must pass before a correct response is reinforced

Fixed= Constant, does not change

Interval= Amount of TIME passed+ Correct response in that time

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FIXED INTERVAL EXAMPLES

- Employee receives pay check every two weeks that they provide their service
- A toddler receives a treat for sitting quietly in their car seat when a 5 minute timer goes off

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FIXED INTERVAL EXAMPLES

- Example Video

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ASR #9

A fixed interval schedule of reinforcement requires a specific amount of _____ and a _____ response for reinforcement.

- A. Responses/ response
- B. Time/ correct
- C. Time/ varied
- D. Responses/ correct

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VARIABLE INTERVAL SCHEDULES

A schedule of reinforcement in which a correct response and a mean or average amount of time must pass to gain access to reinforcement

Variable= Changing. Average/mean

Interval= Specific amount of time elapses before a single correct response produces reinforcement

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VARIABLE INTERVAL EXAMPLE

- A fish bites ON AVERAGE every 20 minutes
- A toddler gets praised ON AVERAGE every 2-5 minutes for sitting quietly in their car seat

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VARIABLE INTERVAL EXAMPLE

- Example Video

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ASR #10

A variable interval schedule of reinforcement reinforces a _____ response after an average amount of _____.

- A. Random/ Time
- B. Correct/ Occurrences
- C. Random/ Occurrences
- D. Correct/ Time

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ASR #11

You are working with a client on appropriately sitting in their seat during class. You give them praise around every 5 minutes if they are sitting in their seat quietly. Which schedule of reinforcement is this?

- A. Variable interval
- B. Variable ratio
- C. Fixed interval
- D. Fixed ratio

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ASR #12

An employee is working at a factory making pillows. Every 20 minutes their supervisor checks in and if a pillow is completed, the employee gets to leave 5 minutes earlier that day. What type of schedule of reinforcement is this?

- A. Continuous
- B. Variable interval
- C. Fixed interval
- D. Fixed ratio

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Fixed Ratio

• Requires completion of fixed number of responses to produce reinforcement

Variable Ratio

• Requires completion of a variable number of responses to produce reinforcer

Fixed Interval

• Provides reinforcement for the correct response following a fixed duration of time

Variable Interval

• Provides reinforcement for the correct response following a variable duration of time

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SUMMARY

- Define schedules of reinforcement
- Understand continuous and intermittent schedules
- Define and apply fixed ratio (FR), variable ratio (VR), fixed interval (FI) and variable interval (VI) schedules
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- Understand fixed and variable schedules
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