



V-VICTA®

VirTra - Virtual Interactive Coursework Training Academy®

BEHAVIOR ANALYSIS THREAT RESPONSE

Training Manual

VirTra

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CERTIFICATION

This "Behavior Analysis Threat Response" training course has been certified by the IADLEST™ National Certification Program on 4/19/2022.

Certification Number: 22457-2204



BEHAVIOR ANALYSIS THREAT RESPONSE

TOPIC

Behavior Analysis Threat Response

ESTIMATED TIME

7 hours

Presentation (lecture) - 1 hour

Solo (3-4 hours)

Behavior Discrimination 1- 15 min

Behavior Discrimination 2- 15 min

Behavior Discrimination 3- 15 min

Behavior Discrimination 4- 15 min

Behavior Discrimination 5- 15 min

Behavior Discrimination 6- 15 min

Behavior Discrimination 7- 15 min

Behavior Discrimination 8- 15 min

Behavior Discrimination 9- 15 min

Behavior Discrimination 10- 15 min

Behavior Discrimination 11- 15 min

Behavior Discrimination 12- 15 min

Partner (3-4 hours)

Behavior Discrimination 1- 15 min

Behavior Discrimination 2- 15 min

Behavior Discrimination 3- 15 min

Behavior Discrimination 4- 15 min

Behavior Discrimination 5- 15 min

Behavior Discrimination 6- 15 min

Behavior Discrimination 7- 15 min

Behavior Discrimination 8- 15 min

Behavior Discrimination 9- 15 min

Behavior Discrimination 10- 15 min

Behavior Discrimination 11- 15 min

Behavior Discrimination 12- 15 min

PERFORMANCE OBJECTIVES

At the end of 7 hours of instruction in a video simulation, the student will successfully be able to discriminate between lethal force situations and non-lethal situations with 100% accuracy using the “Behavioral Discrimination 10.”

CLASS SIZE

Designed for pairs of officers with a maximum class size of 8 (4 pairs). If class size is smaller than 8 (4 pairs) scenarios can be cycled through faster.

Students will have a dedicated time to ask questions at the end of the lecture as well as between sections.

SCENARIO BANK TO BE USED

V-300/V-180/V-100 Behavioral Discrimination 1
V-300/V-180/V-100 Behavioral Discrimination 2
V-300/V-180/V-100 Behavioral Discrimination 3
V-300/V-180/V-100 Behavioral Discrimination 4
V-300/V-180/V-100 Behavioral Discrimination 5
V-300/V-180/V-100 Behavioral Discrimination 6
V-300/V-180/V-100 Behavioral Discrimination 7
V-300/V-180/V-100 Behavioral Discrimination 8
V-300/V-180/V-100 Behavioral Discrimination 9
V-300/V-180/V-100 Behavioral Discrimination 10
V-300/V-180/V-100 Behavioral Discrimination 11
V-300/V-180/V-100 Behavioral Discrimination 12

I. INTRODUCTION TO BEHAVIOR THREAT CUES

A. PURPOSE

A. GOALS

II. COSTS OF BAD DECISIONS

III. RAPID EVALUATION OF BEHAVIOR

IV. SCHEMA THEORY

V. OVERALL MOVEMENT SCHEMA

A. RECALL SCHEMA

B. GENERALIZE MOTOR PROGRAM

C. RECOGNITION SCHEMA

D. DEVELOPMENT OF GMP STRENGTH AND SCHEMA



VI. CONCLUSION

VII. TRAINING EVENTS

A. SESSION SET-UP SAMPLES

B. FOUNDATIONAL DRILLS

C. HIGHER COGNITION DRILLS

VIII. QUESTIONS?



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I. INTRODUCTION TO BEHAVIOR THREAT CUES

Directing attention to critical cues, rapidly and correctly interpreting what they mean, formulating a decision, and carrying out the action is what must be developed in the use of force encounters to ensure vital outcomes. This cannot be done in a classroom but can be done in a synthetic environment provided by the VirTra Simulation System.”

(Slide 3) Life and death decisions have to be made by officers every day and they must have the best tools for the job. The most important tools include the software held in the mind on how to perceive, interpret and respond to all threats.

A. PURPOSE

The purpose of this course is to improve the ability of officers to:

1. Correctly perceive human behavior
2. Discriminate correctly when it creates a risk of serious injury and death
3. Provide better skills at quickly responding to the deadly behavior

A. GOAL

The goal is to decrease the shooting of unarmed individuals and train higher cognitive decision making in these types of events.

II. COSTS OF BAD DECISIONS

(Slides 5-6) Officers are required to experience and appropriately respond to human behavior. When the officer responds inappropriately, there is a huge risk to life. An inappropriate response can lead to unnecessary loss of life. Life, health and safety are not the only things that can be lost.

When LE respond correctly, there is still a risk to human life. A subject engaged in unlawful and deadly behavior could be shot and killed with justified force. Even a perception of misconduct can lead to additional loss of life and property, as evidenced by riots in the last decade.

III. RAPID EVALUATION OF BEHAVIOR

(Slides 8-9) Law enforcement officers have to perceive, attend to and recognize behavior quickly in order to be effective. This behavior may be:

1. Cries for help
2. Medical emergency
3. Signs of mental illness
4. Threats to the officer and community

The highest risk to the community and the officers that guard it is from deadly actions of people near or from the community. These deadly actions often provide fractions of seconds for the officer to perceive, process and respond to.

When the officer does this correctly, they can protect the community members and themselves, but often at the risk of the subject engaged in this deadly behavior.

IV. THE SCHEMA THEORY

(Slides 11-12) **How we respond is founded on what we understand and what we can do.**

Learning about the world starts from when we are young in the development of schema. A “schema” is an organized framing of knowledge for a subject, topic or event and is based on past experience. It guides our current understanding and actions. Schema build on other schema and can be altered or refined.

Schemata are ways for us to clarify and organize the world around us.

These schema include being able to identify a water bottle and recognize that it is different from a cup. One can view 100,000 different versions of a coffee cup, yet adults have the ability to identify and classify each of them as a coffee cup.

Schema also include movement, which could be looked at as a set of instructions. The “how-to” of a sport swing is one example.

1. The schema of a baseball bat and a tennis racket are two different examples of schema based on movement or behaviors.
2. They both involve rotation of the body and movement of the arms to hit the ball.

There are limitations to performance and perception. A constraint-led perspective of the world acknowledges this (Vickers, 2007). These constraints include limits of the organism, the environment, and the task itself (Vickers, 2007).

V. OVERALL MOVEMENT SCHEMA

(Slides 14-18) This is how our brain develops the blueprint for a movement. It is a general program that can be modified. It prevents the need for a different motor program for each degree of change in a movement. The success of modification is based on expertise and experience.

The overall movement schema is comprised of three parts (Schmidt & Lee, 2019):

1. Recall schema
2. Generalized motor program (GMP)
3. Recognition schema

A. RECALL SCHEMA

This occurs before a movement is initiated and includes the following information which the performer must know to use a schema.

Initial conditions:

1. Where is the: threat(s), goal, opposition, teammates?
2. What is the environment like? (Dark, grass, gravel, wet/dry, windy)
3. What condition am I in? (Fresh, tired, injured, moving, falling)
4. What threat am I facing? (Knife, gun, stick)

Response specification:

1. How fast do I need to go?
2. Where do I pass the ball? Where do I need to point my gun?
3. How hard do I need to kick the ball?
4. Which techniques will produce the best results?

BEHAVIOR ANALYSIS THREAT RESPONSE

B. GENERALIZED MOTOR PROGRAM

The overall form of the movement. Experts develop a GMP that is very precise with little wasted energy or time. As a generalize program it can be altered to meet the situational demand and match current parameters. Experts are better at these variations.

C. RECOGNITION SCHEMA

This is where error recognition occurs and can be via sight or by feel. For quick actions, this occurs after the GMP has been carried out, for repetitive or slower actions this can be used to alter the GMP while the movement is occurring.

Continuous skills can be modified.

1. Balance while riding a bike
2. Running
3. Some skills may allow time for modification, but the attention focus prevents it. Example: a baseball outfielder running for the ball knows the running track is there, but slams into the wall anyway.

Discrete skills may be too short to modify.

1. Golf swing - discrete skill, no adjustments can be made
2. Quickly pressing the trigger - discrete skill, no adjustments can be made
3. Throwing a punch - if adjustments could be made, we would not see fighters miss

D. DEVELOPMENT OF GMP STRENGTH AND SCHEMA

The initial development of the GMP strength and efficiency of the schema is related to the method of practice. Variable/random practice has a much better ability to develop the GMP than serial/block practice (Hallack et al., 2019). This is why the stimulus provided in this training is random.

VI. CONCLUSION

(Slide 20) The ability for an officer to quickly use a schema to differentiate threatening behavior from non-threatening is critical. The wrong identification could lead to the unnecessary death of the subject or the officer. The repeated realistic human movement patterns in this training program provide the officer the opportunity to develop a proper schema.

The additional complexity in the decision-making process with the use of partner drills and the numeric balloons increases the cognitive load placed on the officer in the training environment. This additional load is designed to force the officer to switch (be flexible) in the cognitive decision-making process under stress.

VII. QUESTIONS?

VIII. REFERENCES

1. HALLACK, I. M. M., FIGUEIREDO, L. S., FREIRE, A. B., & BENDA, R. N. (2019). The strength of schema depends on the amount of variation during variable practice. *Journal of Physical Education & Sport*, 19, 980–986.
2. Schmidt, R., & Lee, T. (2019) *Motor Learning and Performance: From Principles to Application* (6th Ed.) Human Kinetics.
3. Vickers, J. (2007) *Perception, Cognition and Decision Training: The Quiet Eye in Action*. Human Kinetics.

STUDENT NAME: _____

DATE: _____

1. Correctly directing attention, recognizing and identifying salient stimuli, formulating a reasonable response and carrying out that response is vital in a use of force event.
 - A. True
 - B. False

2. Inappropriate responses range from doing nothing to engaging what constitutes unreasonable force.
 - A. True
 - B. False

3. Even when officers' response is legal, moral, and justified, there can be a risk to human life.
 - A. True
 - B. False

4. Perceiving, attending to and recognizing behavior is not required for optimal use of force decision making.
 - A. True
 - B. False

5. A "schema" is an organized framework for knowledge about a subject, topic, or event based on past experience.
 - A. True
 - B. False

6. Recall schema, GMP, and recognition schema are unimportant in a reasonable use of force event.
 - A. True
 - B. False

7. A discrete skill may be of such a short duration it cannot be stopped or modified.
- A. True
 - B. False
8. Schema or schemata are not used in a force event
- A. True
 - B. False

PRE-TEST KEY

1. True 2. True 3. True 4. False 5. True 6. False
7. True 8. False

Passing score: 70% or more

Any written test and rubric scoresheets shall be kept in department records for 30 years.

BEHAVIOR ANALYSIS THREAT RESPONSE

X. TRAINING EVENTS

The events are designed to be run both solo and as a pair. Any drills run as a pair increases difficulty as you are adding movement and communication. The increase cognitive demand drills include the ability to force the student to discriminate balloon color, even numbers, odd numbers or prime numbers.

These events are set up to provide a foundation that increases in difficulty. They require high levels of focus that cannot be sustained for long periods of time. The intervals should be based on a .5 min to eventually a 1.5 min run with a double to triple the amount of recovery in between intervals.

REMINDER: This course uses extremely precise hitzones. The red sphere in the head and the red rectangle in the body represent instant incapacitation. The body zone equates to a traditional “A” zone and the head zone follows closely to the concept of a “T” zone. This is intentional and requires a higher level of performance. Shots outside of these zones, but still on the person, will cause a reaction but NOT instant incapacitation.



A. SESSION SET UP SAMPLES

1. 10 minute training block with 30 second focus drill (low level)
 - a. Explanation
 - b. 30 seconds on
 - c. 1.5 minute rest
 - d. 30 seconds on
 - e. 1.5 minute rest
 - f. 30 seconds on
 - g. 1.5 minute rest
 - h. 30 seconds on
 - i. 1.5 minute rest
 - j. Debrief

2. 15 minute training block with one minute focus drill
 - a. Explanation
 - b. One minute on
 - c. Two minutes rest
 - d. One minute on
 - e. Two minutes rest
 - f. One minute on
 - g. Two minutes rest
 - h. One minute on
 - i. Two minutes rest
 - j. Debrief

3. 18 minute training block with two minute focus drill (very high level)
 - a. Explanation
 - b. Two minutes on
 - c. Three minutes rest
 - d. Two minutes on
 - e. Three minutes rest
 - f. Two minutes on
 - h. Three minutes rest
 - i. Debrief

B. FOUNDATIONAL DRILLS

1. Solo Drill
 - a. V-300/V-180/V-100 Behavioral Discrimination 1
 - b. V-300/V-180/V-100 Behavioral Discrimination 2
 - c. V-300/V-180/V-100 Behavioral Discrimination 3
 - d. V-300/V-180/V-100 Behavioral Discrimination 4
 - e. V-300/V-180/V-100 Behavioral Discrimination 5
 - f. V-300/V-180/V-100 Behavioral Discrimination 6
2. Partner Drill
 - a. V-300/V-180/V-100 Behavioral Discrimination 1
 - b. V-300/V-180/V-100 Behavioral Discrimination 2
 - c. V-300/V-180/V-100 Behavioral Discrimination 3
 - d. V-300/V-180/V-100 Behavioral Discrimination 4
 - e. V-300/V-180/V-100 Behavioral Discrimination 5
 - f. V-300/V-180/V-100 Behavioral Discrimination 6

C. HIGHER COGNITION DRILLS

An increase in cognitive demands. These drills include the use of a target balloon. The balloons can be discriminated by color and where the number printed on them is even/odd or prime. This is intentionally forcing the prefrontal cortex to function while also discriminating the behaviors of the subjects inside the simulation.

Example student directions:

1. “You will be provided a simulation where human subjects will be providing behaviors that are at times threatening, to include deadly force. You are expected to respond to the threat appropriately. For the first run, you will also be expected to shoot the green balloons.”
2. “You will be provided a simulation where human subjects will be providing behaviors that are at times threatening, to include deadly force. You are expected to respond to the threat appropriately. For this run, you will also be expected to shoot the balloons with even numbers on them.”
3. “You will be provided a simulation where human subjects will be providing behaviors that are at times threatening, to include deadly force. You are expected to respond to the threat appropriately. For this run, you will also be expected to shoot the red balloons with even numbers on them.”

Higher Cognition Drills

1. Solo drill
 - a. V-300/V-180/V-100 Behavioral Discrimination 7

- b. V-300/V-180/V-100 Behavioral Discrimination 8
 - c. V-300/V-180/V-100 Behavioral Discrimination 9
 - d. V-300/V-180/V-100 Behavioral Discrimination 10
 - e. V-300/V-180/V-100 Behavioral Discrimination 11
 - f. V-300/V-180/V-100 Behavioral Discrimination 12
2. Partner drill
- a. V-300/V-180/V-100 Behavioral Discrimination 7
 - b. V-300/V-180/V-100 Behavioral Discrimination 8
 - c. V-300/V-180/V-100 Behavioral Discrimination 9
 - d. V-300/V-180/V-100 Behavioral Discrimination 10
 - e. V-300/V-180/V-100 Behavioral Discrimination 11
 - f. V-300/V-180/V-100 Behavioral Discrimination 12

XI. RUBRIC

TRAINING EVENTS	DATE: _____
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SOLO TRAINING

	Decision Accuracy %	Marksmanship Accuracy %
Behavior Discrimination 1		
Behavior Discrimination 2		
Behavior Discrimination 3		
Behavior Discrimination 4		
Behavior Discrimination 5		
Behavior Discrimination 6		
Behavior Discrimination 7		
Behavior Discrimination 8		
Behavior Discrimination 9		
Behavior Discrimination 10		
Behavior Discrimination 11		
Behavior Discrimination 12		

The scoresheets shall be kept in department records for 30 years.

BEHAVIOR ANALYSIS THREAT RESPONSE

PAIRED TRAINING

	Decision Accuracy %	Marksmanship Accuracy %
Behavior Discrimination 1		
Behavior Discrimination 2		
Behavior Discrimination 3		
Behavior Discrimination 4		
Behavior Discrimination 5		
Behavior Discrimination 6		
Behavior Discrimination 7		
Behavior Discrimination 8		
Behavior Discrimination 9		
Behavior Discrimination 10		
Behavior Discrimination 11		
Behavior Discrimination 12		

The scoresheets shall be kept in department records for 30 years.

STUDENT NAME: _____

TOTAL SCORE: _____

*Passing = 100% for Decision-Making
90% for Marksmanship Accuracy*

BEHAVIOR ANALYSIS THREAT RESPONSE

XIII. CLASS SURVEY

TOPIC: BEHAVIOR ANALYSIS THREAT RESPONSE

INSTRUCTOR: _____

DATE: _____

COMMENTS

CLASS CONTENT	Excellent	Above Average	Good	Below Average	Poor
Class organization					
Class objectives were clearly stated					
Practical activities were relevant to objectives					
All materials/resources were provided					
Topic area was important to Law Enforcement					
CLASS INSTRUCTION					
Instructor was prepared					
Instructor was knowledgeable in the content area					
Manner of presentation of the material was clear					
Effective teaching strategies were used					
Instruction met class objectives					
STUDENT PARTICIPATION					
Level of effort your put into the course					
Your skill/knowledge of the topic at start of course					
Importance of the topic to your assignment					

BEHAVIOR ANALYSIS THREAT RESPONSE

XIV. CONTACT VIRTRA

If you have any questions/issues with any part of this manual, please see contact below:

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