1. Background

    The average basic law enforcement basic training academy is approximately 21 weeks and employs primarily a classroom-based instructional program that is topic-centric when delivered.

    Written tests are used for the majority of training and the classroom experience is augmented with a median of seven scenario-based tests and five proficiency tests.

    Scenario and proficiency tests are frequently delivered within a capstone exercise where recruits apply all learned skills during a series of scenarios near the conclusion of their academy experience.

    Due to this design, the retention interval, or the amount of time between content delivery and final evaluation, may be multiple months for many practical skills.

2. Project Purpose

    In response to this environment, this project will attempt to determine if adjusting how content is delivered and how often recruits encounter content from a particular subject matter area will improve information retention. Specifically, the two concepts we will be adding to the police academy experience are integrative curricular design and distributed practice.

    Integrative curricular design – An instructional design methodology that arranges courses around thematic units and strategically reinforces connections between knowledge from different but related subject matter areas.

    In practice, this means teaching a recruit a skill such as de-escalation and then reinforcing that skill throughout the remainder of the academy experience by integrating de-escalation strategies into other subject matter lessons such as interrogations, vehicle stops, and use of force.

    Distributed practice - a learning strategy where practice occurs in multiple sessions over a long period.

    In practice, this means teaching a recruit a skill such as de-escalation and then practicing de-escalation skills at various times throughout the remainder of the academy experience.

    Together, integrative design and distributed practice ensure that content is connected, thematically consistent, and addressed multiple times in various contexts throughout a training experience.

3. Project Design

    To evaluate if integrative design and distributed practice are effective in a police academy setting, we have designed an experiment that enables us to deliver one basic skill area and then, at predictable intervals, practice and reinforce that skill area in different contexts.

    The skill area we will focus on for this experiment is Communication Skills. In the next slide, Jon will explain exactly what we mean when we say Communication Skills. For now, please picture a

comprehensive lesson that teaches best practices on communicating with various groups of people, overcoming communication barriers, and employing de-escalation skills.

Using Communication Skills as our basic skill area, we have constructed our experiment to assess the effectiveness of delivering the Communication Skills lesson and then, at defined intervals, delivering additional Communication Skills content integrated within two other lessons, Motor Vehicle Stops and Mentally Ill Persons.

Finally, as we are assessing the effectiveness of integrative design and distributed practice in delivering Communication Skills content, we will also be working to determine the effectiveness of doing so in an in-person and an online form.

4. Design Specifics

    A. We will have four experimental groups:

        1. Group A: Group A will be the In-Person Control Group. A control group is a group separated from the rest of the experiment so the factors being tested can be isolated. In this case, Group A will receive an in-person Communication Skills lesson and then no follow-on integrated content.

        2. Group B: Will receive an in-person Communication Skills lesson augmented by integrated Communication Skills lesson content and reinforcement delivered in in-person Mentally Ill Persons and Vehicle Stops lessons.

        3. Group C: Group C will be the Online Control Group. Group C will receive an online Communication Skills lesson and then no follow-on integrated content.

        4. Group D: Will receive an online Communication Skills lesson augmented by integrated Communication Skills lesson content and reinforcement delivered in online Mentally Ill Persons and Vehicle Stops lessons.

    B. Experiment Process:

        1. During Week 1 of the academy, all groups will complete a basic Communication Skills test. We will use this test as both a pre-test and a post-test. This will enable us to determine if the integrated lesson content led to greater score increases than the control content deliveries.

        2. All groups will receive Communication Skills content no later than Week 4. Groups A and B will receive the lesson via in-person instruction, while Groups C and D will receive the lesson via online instruction.

        3. Group B (In-Person Integrative) and Group D (Online Integrative) will also receive Communication Skills content that is integrated and reinforced in Responding to Persons with Mental Illness lesson content in-person (Group B) or online (Group D) by Week 8. The control groups will not receive any integrated content.

4. Group B (In-Person Integrative) and Group D (Online Integrative) will receive Communication Skills content that is integrated and reinforced in Motor Vehicle Stops lesson content in-person (Group B) or online (Group D) by Week 12. The control groups will not receive any integrated content.

5. During Week 16, all Groups will complete the basic Communication Skills test delivered in Week 1 as well as several scenario-based performance skills assessments that will enable academy staff and the project team to observe and assess students' abilities to employ communication skills in varied contexts.

C. Experiment Outcomes:

1. By designing the experiment in this manner, we will gather information responsive to these questions:

   a. With a retention interval of 16 weeks, does an integrated content delivery approach with distributed practice at 30-day intervals improve student performance on written tests and scripted scenario assessments?

   ii. Does the content delivery medium (online or in-person) impact the effectiveness of an integrated content delivery approach?

Questions about the research design can be directed to Dr. Tim Bonadies

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