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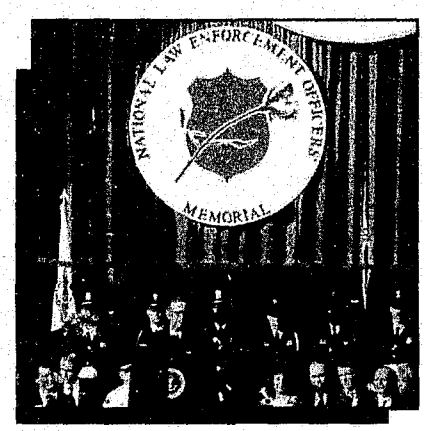

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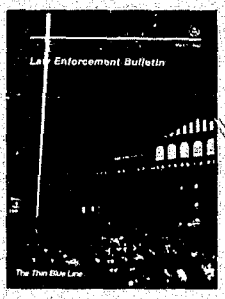

The Cover: *During a candlelight ceremony at the proposed site of the National Law Enforcement Officers Memorial, a crystal blue laser symbolizes the "thin blue line" of protection law enforcement officers provide. See page 24. Cover photo courtesy of Walter Gundy.*

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William S. Sessions, Director

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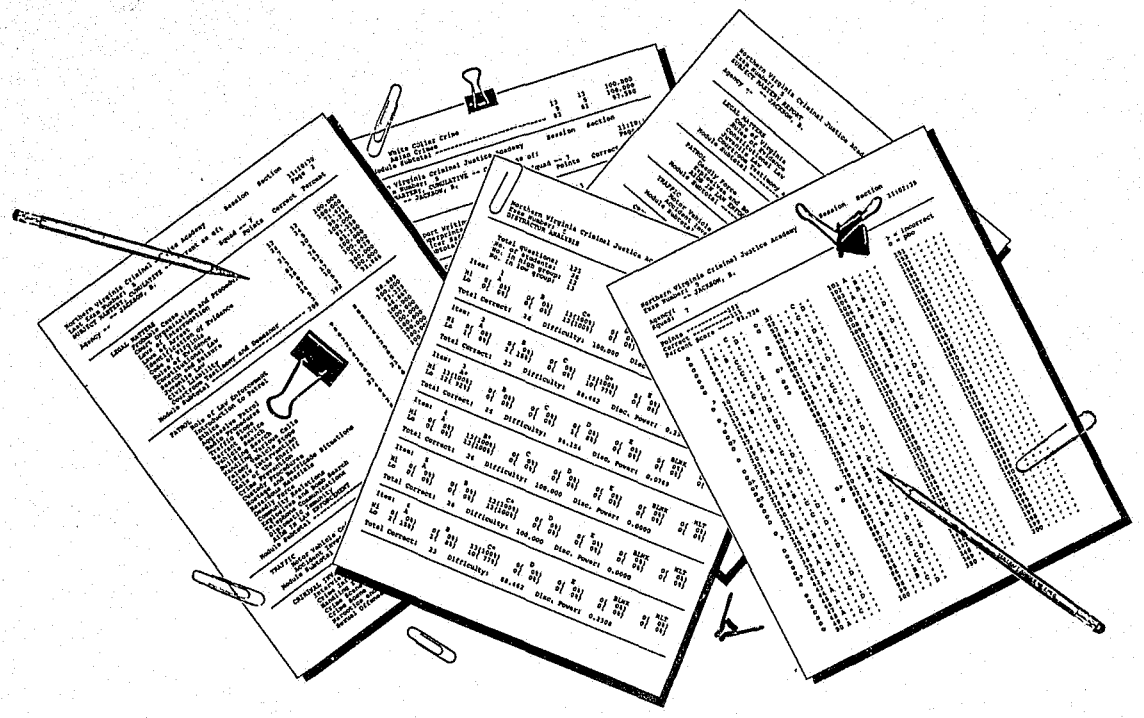


Managing Police Basic Training Curriculum

BY
RENE A. BROWETT

The scenario might go something like the following. It's test day at the police academy. The recruits have just completed their first major examination and are anxious to find out how they performed. The training staff is sequestered in a large room, seated at long tables covered with stacks of exams in front of them. Calculators are in clear evidence. The grueling task of hand grading the exams begins. Question by question, they trudge through the exam. To validate test questions (to find out if more than half the class has missed a certain question), the leader calls out the questions by number to see how many of the graders have papers in which a student has missed a specific question. Hands go up, a count is taken, numbers recorded, calculators figure averages—some right, some wrong. The process goes on for hours, even days. Meanwhile, the students wait.

Does this often-repeated scene have to be? No—not if the recruit curriculum testing-and-evaluation vehicle involves some computer assistance. Such a system exists at the Northern Virginia Criminal Justice Academy (NVCJA). The NVCJA basic training staff has developed a systematic process whereby days of effort by a training staff are reduced to less than 2 hours using one or two people.

This article will discuss how a basic police training curriculum can be quickly and efficiently managed with an effective, programmatic approach. Using the NVCJA as a case study, the article will first provide some background about the academy and then will discuss the hardware, software and the process

involved in managing the basic recruit curriculum.

ACADEMY BACKGROUND

Established in 1965, the Northern Virginia Criminal Justice Academy provides training for over 25 criminal justice jurisdictions in the Northern Virginia area. Staffed with 32 full-time employees, the academy has a leadership cadre of six executives, including the director, all of whom are former police officers. Along with a permanent support staff, the academy is augmented with officers from each of the participating jurisdictions which provide them as instructors on assignment for up to 3 years. As one of nine regional academies in the State of Virginia, the academy is governed by a Board of Directors comprised of the chiefs of police, sheriffs and city/county managers from the larger participating jurisdictions.

The academy provides both recruit and inservice training for each of the participating police departments and sheriff's offices in the region. Consequently, recruit training consists of subject matter leading to three certifications mandated by the Commonwealth of Virginia: Basic Law Enforcement, Basic Civil Process-Court Security, and Basic Jailors. Each year the academy graduates approximately 300 students after completion of a 14- to 18-week course of instruction.

In order to graduate, each student must successfully complete all State- and academy-mandated tests and related requirements. Developed by the Department of Criminal Justice Services (DCJS) headquartered in Richmond, VA, State-mandated requirements are commonly known as performance objectives (POs). These State mandates (POs) are the end result of a formal job task analysis, commissioned by the department (DCJS), where the various functions of police officers and sheriffs were identified. Developed from this study were over 400 performance objectives which form the basis for State-mandated police training. Each training academy must teach and test every performance objective—and also retest any objective missed by students.

The academy (NVCJA) also provides State-mandated minimum inservice requirements (MIR) training. The inservice staff coordinates with DCJS to ensure that every 2 years, all officers receive at least 40 hours of State-mandated training, to include instruction in the law. Taught almost exclusively by outside instructors and coordinated by a professional staff, the academy offers overs 100 inservice training classes. While inservice training is not the focus of this article, information is provided to give a more complete profile of the academy.

"The NVCJA...has developed a systematic process whereby days of effort...are reduced to less than 2 hours...."

Mr. Browett is the Curriculum Manager for the Northern Virginia Criminal Justice Academy in Arlington, VA.

DEVELOPING THE "STAR" SYSTEM

Because the State requires that every student successfully pass all of the performance objectives, several problems immediately became evident when the academy staff first approached the problem of more efficient curriculum management. First, how could the academy successfully track each objective through the training process to ensure accountability? Second, what type of test construction would be needed to assure the administration that mandated objectives would be adequately tested and validated?

Third, how could performance-based tests be graded within a few hours, not a few days?

With these basic questions in mind, the recruit staff concluded that a computer application might offer a workable solution. After preliminary analysis and over 5 years of refinement, the Student Testing and Records (STAR) System was developed and is presently used at the academy. With this program as the basic software package, the testing system incorporates several components:

- An optical mark reader (SCANTRON), which automatically scores each exam and feeds the raw data directly into a computer
- An additional software program which provides both database and spreadsheet capabilities
- An IBM compatible personal computer with 640K RAM memory and a hard drive, and finally
- A laser printer for letter quality reports

This system costs less than $5,000. By using this relatively simple but highly effective system, the curriculum manager is now able to better manage the basic training curriculum from tracking to testing to validation of each State-mandated performance objective.

MANAGING THE PROCESS

At the core of the academy's curriculum and testing system are the POs. Simply put, the tests must ensure that each student masters each State-mandated PO. Thus, test construction and administration are vital to the integrity of the academy's curriculum management process. Performance-objective accountability and the testing process are the primary responsibilities of the academy's curriculum manager. From lesson plan review to test construction and administration, the curriculum manager is the academy's point man with regard to accuracy and accountability.

> ***"...the curriculum manager is the academy's point man with regard to accuracy and accountability."***

Constructing Tests

All basic training examinations are constructed by the curriculum manager. It is also his responsibility to analyze and validate all test results for each recruit. The testing process begins with the basic lesson plan, which is then reviewed and approved by academy management. Written by staff instructors, each lesson plan must be revised and updated at the end of each training session. They must also contain those specific POs mandated by the State and appropriate for that block of instruction. Test questions flow from and can be directly tracked to POs found in each lesson plan, thus assuring test accountability. Staff instructors, accountable to both the students and the curriculum manager, are responsible for ensuring each PO is adequately taught. Student performance, at test time, usually will reflect whether this situation has, in fact, occurred.

At the end of each specified testing time period, the curriculum manager begins to prepare a test that spans several disciplines and many instructors. How the test construction takes place mechanically is simple and is coordinated by the curriculum manager. First, he speaks with all instructors to verify that their test questions, which are based on the mandated POs, have been taught and are part of a pre-existing database.

Second, the curriculum manager constructs a rough-draft test based on pertinent subject area questions stored in the database. The draft exam is then reviewed by all the respective instructors for their final updates and edits. This phase of the process is accomplished with a high degree of attention to exam security. At this point, if an instructor did not teach a specific objective, the instructor advises the curriculum manager who deletes that PO from the current exam. It will, however, be tested on a later exam, so as to comply with State mandates.

Third, the draft exam is then edited by the curriculum manager based on specific verbal and written feedback from each instructor. The final exam is then constructed, with the rough draft copy kept on file for documentation and accountability.

Administering Tests

To ensure uniformity and test security, all exams are passed out simultaneously to proctoring staff

members who immediately take them to the test sites. Proctors physically remain at each test site for the exam's duration to ensure test integrity. Once the tests are passed out, a staff member reads a test cover sheet containing complete test instructions. Once the instructional sheet has been read, the students begin their exams.

> ***...testing and tracking of [performance] objectives get so cumbersome that administrators [often] do what they can, not what they should.***

The tests are primarily multiple choice with very few true-and-false questions. Students fill out their answers on an answer sheet with a #2 pencil so that it can easily be read by the optical mark reader.

When each recruit section is finished, all exams are returned and accounted for by the curriculum manager. A single missing exam is treated as a compromise to the test's integrity and the results are then deemed invalid. This has yet to happen at the academy while using this system.

Scoring Tests

To score each examination, the assistant director for basic training and the curriculum manager work as a team to complete the effort. First, the curriculum manager determines each answer sheet is properly completed. If an answer sheet is incomplete, the recruit officer is called in and asked to make the required corrections. This pertains only to basic identification information on the form and not to incomplete test answers. Should a defective answer sheet get into the system, the computer will automatically reject it when it is scanned. Multiple answers, unclear erasures, or answer spaces left blank can cause an answer sheet to be defective. In each case, the computer indicates the nature of the problem, the location of the problem, and will inquire what the user wishes it to do regarding the defect.

To prepare the system for the grading mode, a master answer sheet (previously prepared by the curriculum manager from the master exam) is scanned. This sheet will provide the test basis from which all student answer sheets will be graded. Each student's answer sheet is then quickly fed into the scanner, with the data automatically stored on the recruit section's information disk. The scanning process takes approximately 3-5 minutes for a section of 25 to 30 recruits. After the scanning step is completed, the computer produces a raw scores average sheet which is a rank-order listing of each class member based on the computer-generated averages of correct responses. This immediately shows the curriculum manager what the statistical range of the class is and if he has any individual failures to review.

The next step in the grading process is item analysis and test validation. To determine the relative fairness of each exam question, the computer automatically produces a distractor analysis document. The computer automatically views each question, and where 50% or more of the class get a question wrong, the question is reviewed and the instructor consulted. If he or she feels the material was adequately covered, the question will remain. If the question is tough, but fair, it stays in the exam. However, where there exists reasonable doubt that the students were genuinely confused by the question, it is eliminated from the overall test score. The benefit of a doubt is always given to the student. After all the eliminated questions are determined, they are subtracted from the original total to formulate a net basis for computing the final test scores. Students must score 70% or better to pass.

Generating Reports

As an integral part of the process, the computer generates several other reports. First, it produces a subject mastery report (a report card) to each student which tells them how they did in each subject area. Second, it produces the same report but in a cumulative format, which is used by staff members for counseling and remedial training. Third, a test answer sheet is generated which tells the recruits not only the correct answer but also what answer they put on their answer sheet. This report also indicates that questions are State-mandated and require retesting if missed. This capability provides a vehicle that allows identification

of missed POs and retest on a timely basis by the curriculum manager, a procedure required by the State.

In short, using the software in the STAR program, the computer can generate any aspect of the testing process into a hard copy for the student and staff member within an average of 2 hours—from start to finish.

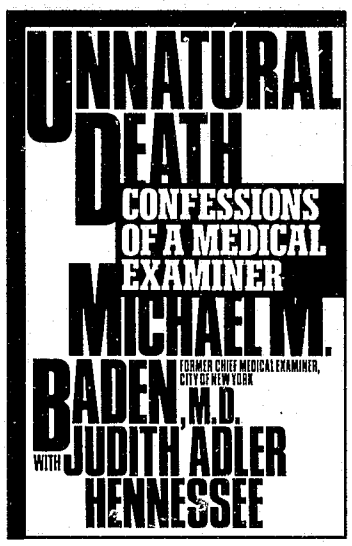
Maintaining Security

The testing, grading, question database, lesson plans and section data records are maintained on both floppy disk and hard drive. As an added security feature, the curriculum manager's office is locked during non-office hours and backup disks and access codes are secured. Hard copies of exams, rough drafts, and actual lesson plans are likewise kept secure.

CONCLUSION

A well-managed curriculum begins with a good job task analysis and performance objectives that arise from such analysis. In turn, lesson plans and student activities should be based on those performance objectives and must be tested accurately. Unfortunately, all too often, testing and tracking of such objectives get so cumbersome that administrators of an academy or educational institution do what they can, not what they should. However, if applied meaningfully to the task, the computer offers welcome relief to training administrators. The NVCJA has, over the years, tried to develop and refine a process that adequately manages a complex curriculum process without hamstringing the staff—a compromise that is working very well. LEB

Book Review



Unnatural Death: Confessions of a Medical Examiner, *by Michael M. Baden, Random House, New York, 1989.*

Of the 2 million deaths each year in the United States, eight percent are classified as unnatural. Dr. Michael Baden, former Chief Medical Examiner for New York City, discusses both the scientific and political aspects of unnatural death investigations.

The author describes the complicated, sometimes intriguing, details surrounding the deaths of some very well-known public figures, including Nelson Rockefeller, John Belushi and Elvis Presley. He reveals how autopsies for some of the more baffling deaths either failed to disclose critical evidence, were performed in a questionable manner, or were conducted by personnel ill-trained in forensic pathology. Using the flawed autopsy of John F. Kennedy as an example, the author reveals how the public is misserved by faulty medicolegal autopsies.

This book briefly traces the history of postmortem examinations, first in Britain then in the United States, and reveals how political concerns often overshadowed the search for truth. Dr. Baden discusses his own career as a medical examiner, revealing political pressures that were sometimes exerted while he served as coroner in New York City.

Even more alarming than the political aspect of medicolegal examinations is Baden's claim that autopsies, especially those involving questionable or unnatural death, are routinely flawed and performed by incompetent personnel. The book also presents several cases where conscientious, thorough "postmortems" proved invaluable in producing evidence in homicide cases, either establishing a relationship between victim and offender or helping to clear innocent suspects. Unfortunately, Dr. Baden claims these cases are the exceptions.

While this book is hard hitting and, at times, startling in its detail, it is captivating and a worthwhile read for postmortem investigators or anyone interested in the science of forensic pathology.

Reviewed by
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