

Pre-Employment Testing of Computerized Telecommunication Skills



Public safety agencies are having great difficulty attracting, hiring and retaining qualified telecommunicators. Even those agencies that can afford to pay extremely competitive wages are facing challenges in hiring and retaining qualified persons. There appears to be several reasons why this is occurring.

First, many public safety agencies allow too much time to pass between an employment application being submitted and a selection decision being made. Otherwise qualified applicants find attractive employment elsewhere while waiting. Much of the delay is due to infrequent pre-employment selection testing, which results in applicants having to wait many months before they can even take a qualifying test.

Second, the pre-employment selection tests commonly used by agencies often have not been updated to identify those applicants who

possess the modern abilities needed to perform the complex telecommunicator job as it exists today. While the telecommunicator's job has changed drastically with the introduction of technology such as computer-aided dispatching (CAD), multi-channel radio systems and mobile data terminals, many agencies have not changed the tests they are using to select their employees.

The California Commission on Peace Officer Standards and Training (POST) reported that approximately 80% of trainees who leave a telecommunicator's position prior to completing their probationary period (typically one year) left because they did not possess the job-related knowledge, skills and ability necessary to perform the job properly.

A national job analysis of telecommunicator positions in 2000 revealed that today's computer-aided telecommunicator must be able to

use a computer in a routine, automatic manner so that he has sufficient cognitive resources remaining available to focus on other, more pressing tasks. Scientific research reveals that developing skills to the point where they become unconscious and routine typically requires hundreds of hours of practice.

Most applicants have neither the time nor the energy to practice enough to develop the ability to routinely perform computer-related skills after they have been hired. It is apparent that applicants should possess the ability to routinely perform these tasks prior to being hired.

Finally, it has been noted that many applicants have an unrealistic view of the type of tasks that telecommunicators perform and quickly become disillusioned after beginning the job.

In the 1990s the San Diego County Sheriff's Department was faced with a severe shortage of qualified telecommunicators. It

embarked on a program to improve its overall selection and training process so it would be able to test, hire and retain the most qualified people possible. The program it developed includes a pre-employment selection test that is administered on an on-going basis to shorten the time between an application being submitted and testing taking place.

This test measures the ability to routinely perform computer-related tasks needed for today's complex telecommunication environment in addition to the other basic abilities needed, while providing the applicant with a realistic preview of

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the types of tasks that telecommunicators frequently perform.

In the past 20 years, public safety call-taking and dispatching has heartily embraced computer and computer-related technology. Jobs that formerly required mostly a sharp ear and pencil now require a sharp ear and keyboard skills. Telecommunicators must have the ability to enter data into a computer via a keyboard while listening to a caller and navigating through a maze of computer screens, maps and multi-channel telephones/radios, while simultaneously making life and death decisions. Dispatch centers now look more like NASA space control centers

telecommunicator performs, while not requiring the test taker to have any previous training or education specific to this field. It chose to use CritiCall Personnel Selection Software as the measure of the applicants' ability to perform these job-related tasks.

Typing tests, which are traditionally used by agencies when selecting telecommunicators, measure an applicant's ability to type complete paragraphs copied from a written page that contain mostly alpha characters and that are at least partially scored on the accurate use of capitalization and punctuation. However, telecommunicators rarely copy complete paragraphs from a written document, and

are necessary for today's complex dispatch environment in addition to assessing the more traditional telecommunication skills required to perform the job.

Trainers at the communications Center indicated that applicants who had little or no computer experience were unable to keep up with rigorous training requirements during their probationary training period, and often failed or dropped out of training. In contrast, it was found that applicants who had an acceptable level of computer-related abilities as measured by the CritiCall test prior to their being hired were less likely to fail or drop out of training.

The test offers the applicants a glimpse into the types of tasks a telecommunicator performs and the pressure under which these tasks must be performed by providing a realistic preview of the job during the test.

Since implementing CritiCall in September 2001, the department has eliminated its training failures related to an applicant's lack of computer skills. Preliminary data suggested the testing effectively screens applicants for skills and aptitude needed by successful telecommunicators.

Finally, it had previously identified that many highly qualified applicants dropped out of the selection process because it had been taking too long from the time an application was submitted until a formal job offer was made. CritiCall is self-administering and self-scoring, using a basic personal computer. The amount of time it takes to hire a qualified applicant is now greatly shortened.

The San Diego Sheriff's Department is now able to maintain a pool of applicants, qualified for highly-complex 21st Century telecommunication positions by integrating a computerized testing system that measures the up-to-the-minute skills required of telecommunicators, into its pre-employment selection process.

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than the telephone answering services they once resembled.

The San Diego Sheriff's Department was having difficulty selecting and retaining the most qualified employees for this highly technical profession. Many of the employees had dropped out, as they could not keep up with the highly specialized training that was provided. The high turnover rate during the training period was causing a serious drain on its resources.

As an essential part of streamlining and strengthening the employee selection process, the department decided to change the screening mechanism from a manual dexterity test to a computerized testing system that mimicked many of the important technical and non-technical tasks a

are seldom required to use proper capitalization or punctuation.

In contrast, CritiCall measures the ability to enter short phrases containing alpha and numeric characters in all capital letters, using a computer keyboard. Also, the information to be entered is provided to the test-takers mostly in audible form, which is more similar to the way information is actually provided on the job. Since this testing better emulates the modern work environment, it is a much more valid measure of an applicant's ability to perform telecommunicator job functions.

After testing over 1,200 applicants using CritiCall, it found some other unique benefits over the manual dexterity test previously used. The test measures computer-related skills that