

## USING SIMULATION TO ADVANCE REALISM IN LAW ENFORCEMENT TRAINING

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### ABSTRACT

Training instructors are using advanced, interactive use-of-force simulators to produce unique training experiences for law enforcement officers. While today's simulators are sophisticated with scenarios that make them invaluable tools in law enforcement training, much of the training doesn't take full advantage of simulator capabilities when used in the context of a larger training environment. Based on the professional experiences of the author, an immersive concept that would require trainees to not just react to the video on the simulator, but to work the scenario within the context of a larger environment would be extremely beneficial. A training venue has been developed with the goal of revolutionizing law enforcement training in Wisconsin. Using simulation scenario-based learning and training offers many benefits to law enforcement officers and advances realism in law enforcement training.

### 1 BACKGROUND

Over a four-year period the author, building on his experience as a former police supervisor and as a dean of Wisconsin's Waukesha County Technical College (WCTC) criminal justice program, developed a training venue with the goal of revolutionizing law enforcement training. This unique scenario-based virtual training system includes a linked two-screen virtual shoot-house product designed for multiple scenario-based escalation and de-escalation training, and a live-fire system where officers can train on interactive use-of-force scenarios with a laser training pistol and in live-fire mode. The poor quality of initial simulator-based scenario training experiences offered to the students led to developing a more immersive concept that would require trainees to not just react to the video on the simulator, but to work the scenario within the context of a larger environment, where they are required to do what they need to do in real life. This was done by researching techniques used in motion picture production and enlisting assistance from entertainment industry professionals. With WCTC carpentry students, professional sound editors, and scenery artists' donated efforts, the WCTC's Interactive Training Center (ITC) operates the equivalent of a law enforcement training soundstage. In operation since Fall 2017, the Center uses a combination of physical structures, backdrop paintings, foliage, lighting, props, and sound to create an immersive training experience where students work force-on-force and simulator scenarios. Some environments that can be simulated include a residential street, inside a residence or business, or business district. ITC's training has the ability to recreate low-light conditions in a city environment, since many officers never see daylight while on duty. The sound system can replicate 20 different sounds simultaneously, including barking dogs, gunshots, and helicopters overhead. The training environment can constantly change through rolling carts for the ITC's three simulator systems, so they can be easily moved into different positions to create new environments. The goal of simulation training is to help students — whether in-service or academy—to build a training file of experience to which they can refer back, particularly as officers will always refer back to their training when under stressful situations. Expanding this concept around the country is the goal.

## **2 BENEFITS OF SIMULATION**

Using simulation scenario-based learning and training with sophisticated technology that includes sound effects, different props, and Hollywood-type backdrops offers many benefits. Having officers doing more holistic training provides for complete situational awareness and threat assessments, tactical considerations, and life-saving techniques. Using technology in this simulated environment allows for realistic training that can be supplemented by doing role playing. A training system helps officers train in active shooter response. Training simulators offer an opportunity to train law enforcement to de-escalate and defuse situations versus just “shoot or don’t shoot” (Griffith 2018). Training simulators can be used to show law enforcement officers how to prevent and to improve the response to school shootings. Training simulators also allow public safety personnel to train to respond to malls, churches, apartments, and theaters. Different screens can be placed down different hallways and can be configured into multiple layouts, so officers never see the same layout twice. Law enforcement officers can work team or individual active shooter response situations in force-on-force or simulator-based scenarios. Simulator training programs can teach officers and others how to perform at the highest levels with a firearm, based on studies of human performance, physiology, neurology, and psychology, and the staff’s years of tactical experience with firearms. The simulator gives training staff the ability to do things they can’t do on a live fire range. Students in live fire classes usually shoot a maximum of about 500 rounds per day, while they can shoot 3,000 times in a simulator and are not as tired even though the training guns have simulated recoil (Griffith 2018). Students are usually required to follow the same safety rules they would on a live fire range. The sim range also can be a good place to work with inexperienced shooters or shooters who have problems. Thus, using simulation scenario-based learning and training offers many benefits and advances realism in law enforcement training.

## **3 SIMULATION TECHNICAL ARCHITECTURE**

ITC is centered in an open warehouse attached to a live fire – firing range, traditional classroom, and student commons area. The environment is flexible, so the scenario can be changed to maximize student learning. There are both physical and virtual capabilities to ensure a high degree of realism.

## **4 SIMULATION CASE STUDY RESULTS**

Surveys and interviews of instructors and students have been done after each training session, and the consensus of feedback has been positive. High ratings and common themes of comments include: Realistic training; Training environment improved; Training can be used in the field; Ability to test new methods and techniques; Made the officer better prepared; Understanding the importance of this type of training. Students reported they have never had this type of training and considered it potentially lifesaving (Griffith 2018).

## **5 CONCLUSIONS**

Use of force encounters will continue and have put law enforcement in very dangerous situations, increasing the attacks on officers (Robinson 2007). Review of these encounters by the agency, courts, media, public, and Federal government will be conducted. Small training centers described in this case study are needed to continue advancing this training effort. This Center has the potential to transform training in both use of force applications and de-escalation techniques.

## **REFERENCES**

- Robinson, P. 2007. *Defensive and Arrest Tactics: A Training Guide for Law Enforcement Officers*. Wisconsin Department of Justice Law Enforcement Standards Board.
- Griffith, D. 2018. “Training Simulators: Going Beyond Shoot, Don’t Shoot”. *Police Magazine*, 42(3).