

# Utilizing Technology for Training and Professional Development in Law Enforcement

Tom Laurel

## Abstract

Computer Aided Learning, Computer Based Learning, E-Learning and Blended Learning are technologies currently being used in educational settings all over the United States. This paper describes each technology and how it assists learners. Also covered is how this type of technology gives end users advantages over conventional classroom learning as well as the obstacles that may prevent some from utilizing this tool. Subsequently, this study evaluates the willingness of law enforcement members to utilize this technology. Next, a correlation is made showing the relationship of technology and the readiness of participants to incorporate online and blended learning in their professional law enforcement careers. Lastly, a case is made on why agencies should consider using technology for training purposes.

In today's economy Florida law enforcement agencies struggle for funding, and as a result, the budget for law enforcement training has been reduced at many agencies. The ability to send officers and deputies to off-site training like in years past has been significantly reduced. This is unfortunate because a lot of high-quality training comes from other off-site instructional organizations. The solution for reduced training budgets may come from technology. Technology has changed so much that there are now several ways to train and learn online or using a computer. This can be much more cost effective in today's society and some educational institutions as well as corporations have found this to be a solution to a number of their training and learning needs. Law enforcement is starting down this path, but there are many different methods to accomplish training and learning.

### Literature Review

Computer Aided Learning and E-Learning are two of the most utilized technological methods for educational training using computers. The term Computer Aided Learning started somewhere in the 1980's and is abbreviated "CAL." Currently, it is one of the "most commonly used acronyms within education according to the Learning Technology Development Unit based in the United Kingdom" (Learning Technology Development Unit [LTDU], 2003, p.1). The term Computer Aided Learning cannot be clearly defined as one would like because there is no set of standardized rules. The best way to describe Computer Aided Learning is that it "assists a user in learning a particular subject" (LTDU, p.2). The computer becomes an "aid" to the user and a method of instruction for a trainer, professor, corporation, etc.

Another term called E-Learning is very similar to Computer Aided Learning, but much more defined. "E-Learning is self-paced instruction taken on the computer, usually downloaded from the Internet or contained on a CD-ROM" (Silberman, 2006, p.192). "E Learning refers to learning supported by the Web. This type of learning can be done inside classrooms, as a support to conventional teaching, such as when students work on the Web at home or in the classroom" (Turban, Rainer &, Potter, 2005, p. 119). It also can be done in virtual classrooms, in which all coursework is done online and classes do not meet face-to-face. The Virtual University as it is called is expanding rapidly all over the world. Hundreds of thousands of students in dozens of countries are studying via such institutions. A large number of existing universities, including Stanford and other top tier institutions, offer online education of some form and it continues to expand yearly. The great thing about Virtual Universities is the fact that classes are offered worldwide. Both of these learning methods allow users to go at their own pace and are great for "delivering consistent training to a group of participants or individuals who may be located in the same place" (Silberman, p.192). Additionally, access is always there, be it on a Christmas Sunday or in the middle of the night. A recent study entitled "The impact of Formative Feedback on Student Learning in an Online Classroom" concluded that test subjects taking graduate courses at an undisclosed university scored higher on multiple choice tests learning online (Blackboard) versus in the classroom. This was verified by the university using statistical analysis software programming (Klecker, 2007, p. 3).

To better understand how E-learning works we have to look at the software that operates it. There are three advanced delivery technologies that support the E-learning environment, Blackboard, WebCT and Elluminate. These are three competing products that provide Internet infrastructure software to educational centers. Students connect to these sites set up by educational centers and conduct learning as if they were in the classroom (Turban, Rainer &, Potter, 2005, p. 120).

Another term that gets lumped in with the above-mentioned examples is "Computer Based Learning." CBL as it is known is knowledge gathered strictly from using the computer. There is no other support. The program is the primary instructor with no human contact or communication taking place. The fundamentals are very similar to Computer Aided Learning and E-Learning whereas it is accessible 24 hours a day 7 days a week. The instruction is always consistent with no deviation in content (Silberman, 2006, p.193).

Blended learning involves one combination of Computer Aided Learning, Computer Based Learning and E-Learning with classroom instruction. Meaning some of the learning takes place on the computer and in the classroom. This type of learning is what law enforcement could start incorporating for off-site classes to save money. Hands on applications could be done in the traditional classroom setting, but the general education could be done online (Silberman, 2006, p.194).

As with any type of instruction there are advantages and disadvantages. Technology mentioned above offers first and foremost convenience, which in today's fast paced society is priceless. Instructors no longer have to be face-to-face with the learner. Also, the learner does not have to waste his or her time driving to different locations. All that is necessary is a computer with Internet access. Around the nation more and more students are earning their degrees over the Internet just because of all the advantages associated with it. Another advantage for corporations and institutions is the fact that computer programs never call in sick and can be accessed 24 hours a day as mentioned before (Turban, Rainer &, Potter, 2005, p. 122).

There are some disadvantages associated with computer based technology. Writing interactive, integrative learning programs can take time and some expense initially, but they are more cost effective over the long run. More predominantly, internet technology has bandwidth issues that may need to be resolved before stepping on the technology front. Examples are DSL modem vs. dial up technology. Some areas still do not have DSL capabilities. This could be a major problem when students are not able to access a learning module. Also, some learners like to gain knowledge from others vis-a-vis. Unless utilizing blended learning, students may feel isolated when engaging in Computer Based Learning. And last, but definitely not least is the learner's computer savvy. If their ability to navigate programs is not up to par then the learning program will not be utilized and will cause frustration for the learner (Turban, Rainer &, Potter, 2005, p. 122).

As stated earlier, professional law enforcement agencies are starting to use technology. The Polk County Sheriff's Office based in Bartow, Florida uses Computer Based Learning to recertify their deputies in a variety of general subjects and other agencies in Florida are doing the same. The Florida Department of Law Enforcement uses this type of technology as a training tool for a variety of subjects. However, technology used in this capacity is basic. This study focuses on the willingness of law

enforcement members to utilize more advanced learning technology and blend it with traditional in classroom learning. An example of this would be any sanction class that is normally taught off-site and that may or may not have hands on applications.

## Methods

The purpose of this research is to determine the involvement of technology and the willingness of participants to incorporate online and blended learning in their professional law enforcement careers.

Population and Sample methods used for this study encompassed data research from random individuals actively working in the law enforcement field. The focus of the research is on the comparison of participants who are willing to incorporate online and blended learning in their law enforcement training and those that are opposed.

Surveys were created and handed out to ten random law enforcement members at various agencies throughout central Florida. The instrument consisted of 12 questions relevant to the study and each answer was forced. Each survey was marked in such a way that I would know if all surveys were returned. Each member was instructed to fill out the survey and place the survey in an envelope. The envelopes were then collected and each envelope was placed in an enclosed bag. The bag was then opened and each envelope was opened randomly. The responses were used to form the results. A total of ten agencies were surveyed during this process which began March 5<sup>th</sup>, 2010 and ended April 20, 2010. A copy of the survey is attached to the end of this document as Appendix A.

## Results

Of the ten agencies surveyed, I received a one hundred percent return rate on all surveys. This was accomplished by having inmate transportation unit members that, work directly for me, deliver the surveys and ensure their return anytime they visited those affected agencies. The results of the surveys are as follows:

78 % of respondents have heard of the term Computer Aided Learning

76 % of respondents have heard of the term Computer Based Learning

79 % of respondents have heard of the term E-Learning

62 % of respondents have heard of the term Blended Learning

95 % of respondents have used a computer to gain knowledge for a subject

Of the 95 % that have used a computer to gain knowledge 23 % of respondents found the learning very useful, 53 % somewhat useful, 11 % were neutral, and 8 % found the learning not useful.

When asked the question of which medium respondents found to be the most effective for learning a new subject 26 % marked lecture, 39 % read a book, 38 % used a computer and 5 % used a video (non-computer).

When responding to the statement that PowerPoint in the classroom is an effective technology for connecting with students 66 % strongly agreed, 23 % agreed, and 11 % disagreed.

93 % of respondents would be willing to use an educational online method that would allow users to communicate in real time with each other while 7 % would not.

78 % of respondent's feel very confident working on a personal computer, 20 % somewhat confident, and 2 % have little confidence.

43 % of respondents feel very confident learning advanced software skills, 24 % somewhat confident, 1 respondent was neutral, 30 % have little confidence and 2 % have very little confidence.

27 % of respondents have used a computer software program to educate others while 73 % have not.

## Discussion

While a majority of respondents seem to have heard of computer learning terms and have used or willing to use a computer to educate themselves modest effort has been made to advance technology in the learning software for training law enforcement personnel. Now is the time to start looking more into technological solutions to overcome lack of training issues due to reduced budgets. Simply putting together a PowerPoint presentation with a quiz at the end and putting it on-line for training is not the best way to ensure law enforcement personnel are adequately trained or re-certified. However, if this kind of education is what an agency wants to do then to improve this type training would require a small upfront purchase of new testing software. This software allows test developers to create a passing standard based on criterion-referenced methodology. This method allows for a very large pool of questions (which is very important) and are weighted based on the difficulty of the question. The computer then randomly picks questions which would be given to the test taker. The score would then be based the outcome of the weighted answers. This would ensure members know the material as opposed to simply passing on the answers to fellow members. A PowerPoint presentation could still precede the test as normal; however, personnel would be forced to know the material prior to taking the test. The results of this type of software would benefit not only the officer, but the agency as well. Just the savings from travel, instructor salaries, and associated costs is well worth implementing a Computer Based Learning program in addition to being accessible 24 hours a day for rotating shifts.

Another useful educational tool for law enforcement training is blended learning. Meaning some of the learning takes place on the computer and in the classroom. This type of learning is what law enforcement could start incorporating for off-site classes to save money. Hands on applications could be done in the traditional classroom setting, but the general education could be done online (E-Learning). A software program called Elluminate would allow training personnel or organizations to give learners vital information, answer any questions and pre-test prior to doing any on-site hands on training. This approach would save travel time and expenses, reduce hotel costs, reduce per diem payments and still accomplished the needed training. Institutions such as the University of South Florida are utilizing this type of education with great success

according to Dr. Boyer Professor of Information Technology (N. Boyer, personal communication, 2008). It is just a matter of time before law enforcement agencies began to see the benefits of this type of training technology and implement it across the nation.

Tom Laurell has been a member of the Polk County Sheriff's Office since 1998. He has had the opportunity to work in several different capacities and locations in the Department of Detention. Tom is currently a Lieutenant in the Support Division supervising the Inmate Programs Section. He has a master's degree from the University of South Florida in Adult Education and is a Certified Public and Jail Manager.

## References

- Klecker, B. M. (2007, September). *The impact of formative feedback on student learning in an online classroom*. Retrieved January 27, 2010, from Gale Cengage Learning: [http://find.galegroup.com/gtx/infomark.do?&source=gale&prodId=PPCJ&userGroupName=21260\\_lclcp&tabID=T002&docId=A170156971&type=retrieve&contentSet=IAC-Documents&version=1.0](http://find.galegroup.com/gtx/infomark.do?&source=gale&prodId=PPCJ&userGroupName=21260_lclcp&tabID=T002&docId=A170156971&type=retrieve&contentSet=IAC-Documents&version=1.0)
- Learning Technology Development Unit (2003). *What is Computer Aided Learning*. Retrieved February 10, 2010, from <http://www.herts.ac.uk.com>
- Silberman, M. L. (2006). *Active Training* (3rd ed.). San Francisco, CA: Pfeiffer.
- Turban, E., Rainer, K., & Potter, R. E. (2005). *Introduction to Information Technology* (3rd ed.). Hoboken, NJ: John Wiley & Sons.

## Appendix A

THANK YOU very much for taking the time to fill out this survey. I am attending the FDLE Future Studies Program and conducting research to determine the effectiveness of computer applications in education for law enforcement professionals. Please complete this survey no later than April 9<sup>th</sup> 2010. The information you provide on this survey is confidential.

**Have you heard of the term Computer Aided Learning?**

- Yes            No

**Have you heard of the term Computer Based Learning?**

- Yes            No

**Have you heard of the term E-Learning?**

- Yes            No

**Have you heard of the term Blended Learning?**

- Yes       No

**Have you ever used a computer to gain knowledge for a subject?**

- Yes       No

**How useful did you find the learning?**

- Very useful       Somewhat useful       Neutral       Not useful       Extremely not useful

**Which medium have you found to be the most effective for learning a new subject?**

- Lecture       Reading a Book       Computer       Video (non-computer)

**Using PowerPoint in the classroom is an effective technology for connecting with students?**

- Strongly Agree       Agree       Neutral       Disagree       Strongly Disagree

**If there were an educational online method that would allow users to communicate in real time with each other and the instructor would you use it?**

- Yes       No

**I feel confident working on a personal computer.**

- Very confident       Somewhat confident       Neutral       Little confidence       Very little confidence

**I feel confident learning advanced skills within a specific program (software)**

- Very       Somewhat       Neutral       Little       Very little



confident confident

confidence confidence

**Have you ever used a computer software program to educate others?**

Yes

No

**Providing the following information is optional.**

Name: \_\_\_\_\_ Rank: \_\_\_\_\_

Telephone: \_\_\_\_\_ Gender: \_\_\_\_\_ Age: \_\_\_\_\_

**If you provided the optional information would you like me to contact you regarding the results of this survey?**

Yes

No

**Again, thank you for taking the time to fill out this survey. Your input is greatly appreciated.**