



# 2012 Research Results

In 2012, CPKN concluded two major research initiatives. Funded by the Police Sector Council and the Canadian Police Research Centre, respectively, these studies were designed to evaluate the impact of CPKN e-learning on Canadian police and first responders. Both studies were carried out by The Competency Group, an independent company specializing in competency training and assessment, human resource development, and consulting. The following is a summary of results and conclusions from those studies.

## Study #1: Police Sector Council e-Learning Course Evaluation

**Study Title:** *CPKN E-learning Course Evaluation Project*

### Objectives

1. To conduct a 'Level 3' evaluation of fifteen online courses to measure the extent to which learning has been transferred to the workplace by identifying whether:
  - Learners demonstrate more confidence in approaching their tasks;
  - Learners are able to complete tasks with increased accuracy;
  - Learners are able to make fewer mistakes; and
  - Learners are able to complete tasks more quickly.
2. Evaluate the trends of and impacts of e-learning course uptake to determine if:
  - Participants feel that e-learning courses are an effective way to learn; and
  - Participants are willing to take more e-learning courses.

### Methodology

Identified learners were asked to complete a Level 3 Kirkpatrick evaluation survey to measure the extent to which learning had been transferred to the workplace.

### Parameters

Learners must have completed the course(s) at least three months prior to survey.

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### Summary of Results

- A total of 2929 individuals participated in the fifteen online surveys developed by TCG.
- After completing an online course, 86% of survey respondents indicated that they felt either *confident* or *very confident* in their understanding of a given subject or ability to complete a given task. These results represent a significant increase, as only 49% of survey respondents felt the same levels of confidence prior to completing an online course.
- 68% reported that they could better understand a subject or execute a task more effectively;
- 69% reported that they could execute a task with increased accuracy or more appropriately;
- 68% reported that they make fewer mistakes when or make better/more appropriate decisions when executing a task;
- 71% demonstrate more confidence when executing a task;
- 68% feel more comfortable teaching another officer what they learned in the course;
- 86% of participants agreed or strongly agreed that e-learning courses are an effective way to learn;
- 84% of survey participants indicated their willingness to take more CPKN e-learning courses in future.

### Conclusions

This study surveyed learners about the impact of e-learning in fifteen different subject areas, from *Forensic DNA Evidence* to *Preventing Officer Involved Collisions*. Across all surveys, the majority of participants indicated that their workplace behaviour was positively impacted by engaging in e-learning courses. As outlined in the results above, three months or longer after the completion of a CPKN online course, the majority of respondents involved in this study felt more confident in their understanding of a given topic or their ability to execute a given task. The greatest increase in confidence (77%) was reported by individuals who completed the *Canadian Firearms Registry Online: A Tool for Officer Safety* course. The least significant increase in confidence (4%) was observed in individuals who completed the *Police Ethics and Accountability* course. This may be attributed to the high level of confidence felt by participants before engaging in online learning activities for this topic.

Increased confidence, enhanced understanding of a subject, and greater ability to execute a task with more accuracy all support the efficacy of e-learning in the policing workplace. Furthermore, this study has demonstrated that the e-learning is clearly accepted by frontline personnel, 86% of whom agree that e-learning is an effective way to learn and 84% of whom are willing to engage in more online learning courses.

From an organizational perspective, based on these results it can be inferred that e-learning can be used to achieve successful learning outcomes in a wide range of training areas within the policing sector.

To view the full report, go to: <http://eprints.cpkn.ca/id/eprint/30>

### Study #2: CPRC Evaluation Project

**Study Title:** *Structured Evaluation of the Impact of E-learning for Canadian Law Enforcement / Public Security Project*

#### Objective

To develop a strategy to evaluate the long-term effects of CPKN's e-learning courses on workplace performance and organizational return on investment.

#### Methodology

- Review existing CPKN pre- and post-test methodologies and general course satisfaction surveys.
- Complete a Kirkpatrick Level 3 evaluation (transfer of learning) of three e-learning courses (*Critical Incident Stress Management, Preventing First Responder-involved Collisions/Preventing Officer-involved Collisions, and RADAR Refresher Training: Stationary and Stationary/Moving*) that has been delivered to the Canadian law enforcement and public safety sectors.
- Complete phone surveys with course participants to determine:
  - Impact of training on participants' behaviour in the work environment;
  - Transfer of learning to new applications;
  - Long-term and broad-scale effects on participants;
  - Changes in worker productivity and workplace safety;
  - Synergistic effects of learning; and
  - Changes in corporate training practices.
- Compare the effectiveness of RADAR classroom training to online RADAR training
- Develop a framework for future Kirkpatrick Level 4 Evaluation (results – effects on organization resulting from participant's performance) including protocols and information required to complete this evaluation.

#### Parameters

Learners must have completed the course(s) at least three months prior to survey/interview.

#### Summary of Results

- A total of 1017 individuals participated in the five online surveys developed by TCG; a total of 30 interviews were carried out with participants from four of the five online courses.
- The assessment tools (Pre- and Post-Test Methodologies and the General Course Satisfaction Surveys), as they presently exist, were found to succeed in fulfilling the purpose for which they were designed.

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- The average improvement in test score from pre- to post- test was 24.8%. This is a significant improvement indicating that participants, as evidenced by the increased post-test scores are able to learn independently, within an online environment.
- After taking an online course, survey participants reported a 24% increase in their confidence in understanding a given subject or ability to complete a given task.
- Survey participants indicated that the online course they completed enabled them to:
  - Better understand a subject or execute a task more effectively (77%);
  - Execute a task with increased accuracy or more appropriately (72%);
  - Make fewer mistakes when or make better/more appropriate decisions when executing a task (69%);
  - Demonstrate more confidence when executing a task (69%); and
  - Feel more comfortable teaching another officer what they learned in the course (70%).
- 84% agreed or strongly agreed that e-learning courses are an effective way to learn.
- 85.2% of survey participants indicated their willingness to take more e-learning courses.
- In a comparison of classroom and online delivery, survey data indicates slightly greater levels of confidence (3%) in learners who completed the online *RADAR Refresher Training* course over those who attended the classroom session. The statistical difference suggests that the online course results in at least an equivalent or greater increase in confidence level than the classroom based course.
- With respect to the telephone interviews:
  - All interviewees agreed that the knowledge they learned in the course(s) was applicable in the field.
  - Interviewees suggested that online training did not reduce the amount of time they were kept off patrol. This was due to several factors, namely, some departments are allotted time per day to dedicate to training, while several respondents indicated that their night shifts or 'on call' work enabled 'downtime' for online training.
  - Participants indicated that all courses (some participants had taken courses in addition to the ones pertaining to this project) were useful for one reason or another.
  - Regarding improved performance as a result of taking the online course(s), interviewees tended to comment that the training raised their levels of *awareness* and, as a result, improved their performance.
  - Participants indicated that it was not difficult to coordinate online training with their other responsibilities.
- TCG made several recommendations for conducting Level 4 evaluation (to measure organizational ROI with respect to online learning)

### Conclusions

The structured evaluation of the impact of e-learning for Canadian law enforcement was assessed using the Kirkpatrick Evaluation Model. This approach provided a multi-lateral assessment that detailed the changes in worker behaviour as a result of the CPKN course training.

### Study Outcomes based on the Kirkpatrick Evaluation Model

Level	Element of Measurement	Outcomes
1	Learner Reaction	The majority of study participants (84%) agreed that e-learning courses are an effective way to learn; 85.2% of all CPKN course participants indicated they would take more courses in the future.
2	Level of Learning	CPKN pre- and post- test results indicate that the average post-test score increased by 24.8%.
3	Changes in Behavior	Overall, survey respondents reported a 24% increase in confidence across all courses being evaluated. The majority of participants indicated that their workplace behavior was positively impacted as a result of taking an online course.
4	Organizational ROI	A framework has been recommended and will be implemented once sufficient time has passed to evaluate the long-term results.

These outcomes support that e-learning is a highly viable and effective means of providing training to police and public safety personnel. In addition to providing meaningful learning experiences and generating positive impacts on workplace behavior/performance, e-learning is particularly useful in situations where there are impediments to traditional learning models, such as accessibility due to location, time constraints, or availability, or cost and time related issues (i.e. a means to train employees without requiring them to travel to a central location or to lose valuable time away from the job).

To view the full report, go to: <http://eprints.cpkn.ca/29>

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In summary, these studies, along with ongoing research at CPKN and within the broader e-learning industry, contribute to a growing body of evidence that supports the value of e-learning in Canadian police and other public safety sectors. Used effectively, e-learning can enhance access to training content and positively impact on learner performance. At the organizational level, this research not only validates e-learning as an accepted approach by learners, but also demonstrates that online training delivers successful learning outcomes.

These initiatives have clearly demonstrated that e-learning has a positive impact on the learning experience among police and first responders and results can certainly support a cultural shift in police learning towards online learning models. Researchers concluded that e-learning contributes to maximizing officer productivity, enhancing operational effectiveness, and improving officer and public safety. By providing evidence-based research that validates the e-learning model within police services, this research can support these priorities and contribute to a business case for the widespread adoption of e-learning within the sector and, ultimately enhance and improve the performance of Canadian law enforcement personnel over the long term.