

# Measuring the Impact of Nuclear Security Training: The Case of the WINS Academy Professional Society

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## Overview

The challenges inherent in managing nuclear and radiological materials are complex and growing. Ensuring that such materials remain secure requires competent management supported by ongoing training. Indeed, training is one of the most effective leading indicators for security.

Nuclear security training should:

- Support organisational goals and strategic objectives;
- Improve participants' skills, knowledge base and decision making; and
- Demonstrably increase the effectiveness of the nuclear security programme.

To achieve such goals, it is critical to assess the value of training programmes and the degree to which they are having a sustainable impact on capacity, capability and business results.

## Possible Training Models

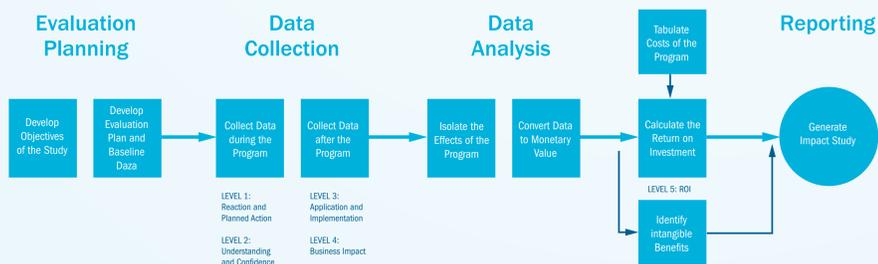
### THE KIRKPATRICK MODEL

The Kirkpatrick Model is one of the most widely used approaches to evaluating training results. Its objective is to help organisations determine the extent to which participants can apply their training to their work in a way that demonstrably increases organisational performance.



### THE PHILIPS' RETURN ON INVESTMENT MODEL

The Philips' ROI Model evolves from the Kirkpatrick Model and yields additional, critical insight by using *isolation* techniques that separate training's impact from other potential factors of business improvement. The method collects data from participants using simple, focused questionnaires and focus groups and categorises the results by level (e.g. reaction, learning, business impact, ROI). Various measures are then applied to capture the degree of programme success from different perspectives (e.g. participant, system, financial).



source: roiengagement.com

### ISO 29990:2010

The International Standards Organization (ISO) has created a new standard, *Learning services for non-formal education and training*, whose purpose is to improve the quality of vocational, life-long learning and in-company training. ISO 29990:2010 creates a generic model for quality professional practice and performance that enhances transparency and enables comparison of training programmes worldwide. Its major focus is on the learner.



### A SYNTHESIS OF THESE MODELS

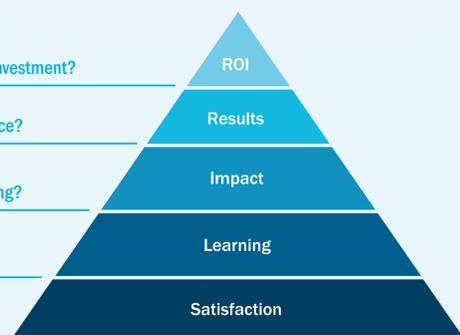
Did the training investment provide a positive return on investment?

Did the training have a measurable impact on performance?

Did the learners behavior change as a result of the training?

Did knowledge transfer occur?

Did the learners enjoy the training?



### THE ROLE OF PROFESSIONAL SOCIETIES

One of the main challenges faced by many nuclear security training is that there is often no mechanism to keep track of the participants after the training and therefore to assess its impact. We believe that one solution is to use professional societies as a forum in which to assess the impact of training, as well as support ongoing professional development and sustainable capacity building.

## The WINS Academy

The mission of the WINS Academy is to be the leader in professional development and certification of nuclear security management. To implement our mission, we have created a series of online professional development courses for people with management responsibilities for nuclear security. (The WINS Academy received ISO 29990:2010 certification in 2014.) The target audience includes board members, executive managers, security directors, scientists/technicians/engineers, offsite incident responders and regulators. Once participants have completed a course, they can sit for a professionally proctored exam offered in 175 countries around the world. Those who pass receive certification from WINS.

### MEASURING THE RESULTS OF WINS TRAINING

We launched our certification programme in 2014, so much of the data are still in the early stages. However, we have already enrolled 500 participants from 70 countries and established the Key Performance Indicators (KPIs) that are instrumental to measuring the impact our training is having on participants. We also continuously survey participants and graduates of the programme to establish new metrics and measure the transfer that occurs in their behavior as a result of the training.

### THE WINS ACADEMY ALUMNI NETWORK

WINS believes that developing effective certification programmes supported by professional societies is likely to lead to sustainable improvements internationally.

Consequently, we have recently launched the WINS Academy Alumni Network. We envision that, over time, the network will build a cadre of security-trained, certified professionals who are at the forefront of new professional requirements for nuclear security competence.

#### CAREER REPORT

To establish how training and certification are affecting our participants' career and advancement opportunities, we plan to gather data that relate to salary, work hours, job satisfaction and knowledge transfer and to analyse them to create career reports that can be used by individuals and organisations to evaluate the results of training.

#### ALUMNI NETWORK

We believe that this platform is an ideal forum in which to engage with our graduates after they complete the course to track their progress, and to provide them with networking and additional training opportunities.

#### SELF-ASSESSMENTS

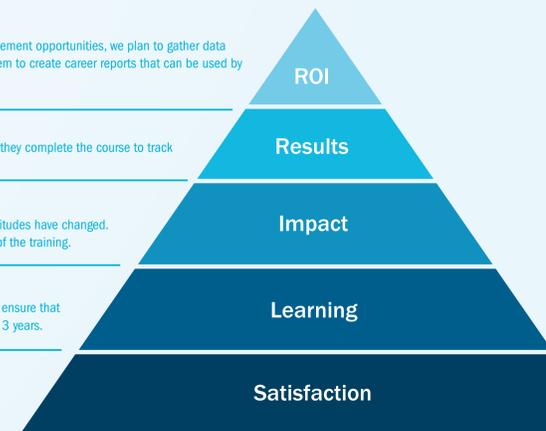
Self-assessments help participants reflect on and understand how their knowledge and attitudes have changed. We also survey graduates to measure the transfer that occurs in their behavior as a result of the training.

#### PROCTORED EXAM AND RECERTIFICATION

An exam is essential to evaluate what participants have learned during the training. And to ensure that professionals continue learning throughout their careers, recertification is mandatory every 3 years.

#### SURVEY PROGRAMME

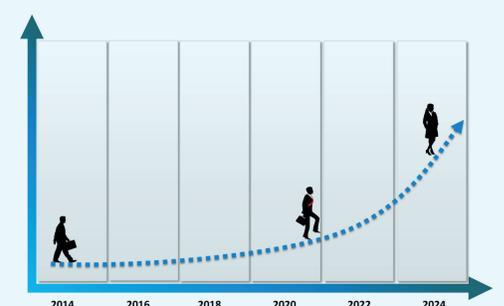
For example, each course has a post-course survey as well as a post-exam survey. We also solicit our participants' feedback on a regular basis.



## Conclusion

WINS believes that developing effective certification programmes supported by professional societies is likely to lead to sustainable improvements internationally.

The key to verifying these assumptions is to collect and analyse data that can accurately measure impact. This is one essential purpose of Alumni network. We envision that WINS Academy-certified practitioners will play an instrumental role in promoting nuclear-security certification and professional development among their peers, and that they will lead the effort to create meaningful and sustainable changes to security culture worldwide.



## About the World Institute for Nuclear Security

WINS was launched five years ago in close coordination with the IAEA as a first-of-its-kind Institute specifically designed to share best practices and strengthen nuclear security. WINS exists to assist those with responsibility for nuclear and other radioactive materials, improve the overall implementation of security practices and promote that all personnel with accountability for security are demonstrably competent. For further information see [www.wins.org](http://www.wins.org)

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