B19 An Evaluation of the Efficacy of a Large Metropolitan Detective Training Program in Forensic Biology/DNA Concepts and Procedures Utilizing a Hierarchical Formative Evaluation

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The goal of this presentation is to present to the forensic science community an educational hierarchical formative evaluation model for use in evaluating forensic biology/DNA training to police detectives/ investigators.

This presentation will impact the forensic community and/or humanity by providing an example of a public policy analysis conducted by a forensic scientist. The analysis introduces an evaluation model measuring the effectiveness of a forensic biology/DNA training program to police detectives. The model can be further utilized to develop and evaluate the effectiveness of any future forensic science training within the criminal justice community. The presentation is timely and applicable based upon several national agendas.

The presentation provides an overview of a public policy analysis. The public policy analysis is a research study examining the efficacy of a collaborative forensic biology/DNA training program to the Chicago Police Department Detective Division. The study establishes a unique model of evaluation derived from the educational field. The study is timely in developing forensic science training programs to criminal justice agencies and mirrors the national agenda for the development and monitoring of training programs.

The specific focus is to determine the efficacy of training, evaluating knowledge and understanding of forensic biology/DNA concepts and procedures, of a forensic biology/DNA training program previously presented by the Illinois State Police Forensic Science Center at Chicago to the Chicago Police Department Detectives. The study evaluates the retention of information by the training attendees, the ability to utilize the information, and identifies future training needs of the Chicago Police Department Detective personnel.

The study develops a model to measure the efficacy of the collaborative training program. The researcher utilizes an educational model, a hierarchical formative evaluation, proposed in 1993. The hierarchical formative evaluation is further developed and operationalized by incorporating a widely accepted educational taxonomy on cognitive thinking skill levels. The resulting evaluation model is a unique approach to measure the efficacy of training at several different levels. The final evaluation model is unique. No published literature documents the incorporation of this taxonomy into the formative evaluation model.

A self-administered survey instrument is the primary data source. The survey instrument (questionnaire) was developed from material presented in the collaborative training program. The questionnaire measures the cognitive thinking skill levels for achievement of the material delivered during training.

From a local perspective, the benefits of the study determine the current understanding of forensic biology/DNA within the Chicago Police Department Detective Division. The study also determines if the training received from the Illinois State Police was effective and identifies additional specific topic related training. In addition, suggestions for changes/modifications to the current program for new detective classes are recommended.

From a national perspective, the research is applicable to other entities within the criminal justice system and other complex systems/organizations. To date, very little emphasis has been placed on the development of training in forensic sciences for police detectives. This lack of training and emphasis in forensic science has been identified through national surveys and studies on police detective training. Currently, there is the start of a national effort, the "Improving Justice Through DNA Initiative," to develop formal forensic science training programs for all elements of the criminal justice community.

Additionally, the research will validate the collaborative training model. The collaborative approach to the development of the training is new to the law enforcement community. The collaborative model demonstrates a successful method to accomplish forensic science education in detective training in the future. This research on the development of the hierarchical formative evaluation model and confirmation of the collaborative training model will significantly contribute to the national agenda.

Lastly, the National Institute of Justice (NIJ) is developing a model to measure the effectiveness of training. The evaluation of training will be mandatory for any training project utilizing grant money. The model presented accomplishes this future requirement.

Forensic Biology/DNA Training for Detectives/Investigators, Public Policy Analysis, Hierarchical Formative Evaluation

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