D41 The Effectiveness of Interdisciplinary Forensic Science Education for Multiple Audiences

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After attending this presentation, attendees will understand the importance of educational initiatives in forensic science at all levels and audiences.

This presentation will impact the forensic science community by illustrating the critical need for integrated forensic education on all levels - middle school, high school, and college students and their teachers, as well as law enforcement and judicial practitioners. A discourse between these often disparate groups within the forensic science community is essential to elevate the perception of forensic science as a valid and scientific field.

Recently, Fradella et al. (2007) described the forensic science field as "plagued with poor education and training" while the National Institute of Justice Special Report on Education and Training in Forensic Science (NIJ 2004) assessed the educational training needs of the forensic science community as "immense." Holland et al. (2006:30) acknowledge that all too often, individuals working in the realm of forensic science may have limited knowledge of crime scene evidence collection, processing, analysis, and presentation of this evidence in a court of law. They go on to state: "continuing this trend is unacceptable, as forensic science is the essential link between the crime scene, the forensic laboratory, and the legal system." It is also clear that many of the recent criticisms of the scientific credibility of the field as well as the response to these criticisms (as evidenced by this year's AAFS theme of "Reliable, Relevant and Valid Forensic Science") revolve around issues of forensic science education.

This presentation explores forensic science educational initiatives aimed at different levels and audiences: law enforcement officers working in the field, high and middle school teachers offering instruction in forensic science, and high school and college students interested in forensic science. These initiatives have taken place over a period of several years at Radford University through the RU Forensic Science Institute. Results of these different initiatives are compared and discussed in relation to nation-wide trends in forensic science education.

In 2009, through funding from the National Institute of Justice, the goal was to deliver at no cost to law enforcement officers a series of four
2.5 day workshops focused on "Innovations in Forensic Science"—two of which have already taken place, serving a total of 120 attendees. The target audience was the mid-Atlantic and mid-Appalachian region, an area with numerous small, rural-based law enforcement agencies. Topics of instruction include digital forensics, forensic biology and chemistry, the medical examiner's role in death investigation, forensic entomology, mass fatality incidents, and forensic anthropology and forensic archaeology. Presenters included a mix of forensic scientists (chemists, medical examiners, criminalists), academicians with many years teaching experience in forensic science, as well as law enforcement specialists working in various forensic science fields. Instruction was based on a combination of lecture, laboratory, and field exercises as well as roundtable discussions. Pre-workshop surveys indicated that digital forensics and forensic anthropology and archaeology were among the areas of greatest interest to attendees. Although law enforcement officers demonstrated a wide range of variation in their knowledge about different areas of expertise in the forensic sciences (based on their education and years of experience), nearly half of the attendees (47.5%) indicated that they had received no training or a minimum of two weeks or less prior training in any of the forensic science topics covered. On a scale of 1-5 (1 being not knowledgeable, 5 being proficient), a mean score of 2.19 on the major topics covered indicated that most attendees felt only slightly knowledgeable about these topics before the workshops. Most attendees felt that the major topics covered were relevant to their jobs. In post- workshop surveys, a mean score of 3.3 indicated a 22.4% increase in knowledge by participants. However, at least 18% of participants indicated little interest in learning about the topics discussed and saw little relevance of these topics to their jobs. These individuals apparently attended solely to obtain the 20 hours of in-service training credit offered for participating in the workshop. In addition, overall attendance of these fully funded workshops was low—statistics indicate that rural police agencies and sheriff's offices with small staffs have little financial opportunity to send their officers to forensic science institutions for training.

The results of these educational initiatives in forensic science aimed at law enforcement officers are compared in this poster to similar ones for high school and middle school teachers and students. Significant differences are found in terms of interest, participation, and application of materials taught. It is concluded that encouraging a collaborative discourse between the often disparate communities of criminal justice and

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forensic science teachers, students, and practitioners is greatly needed.
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