



D22 Forensic Linguistic Research Collaboration Between an Industry Research Institute and a Forensic Science Laboratory

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Learning Overview: After attending this presentation, attendees will better understand the challenges and feasibility of conducting research in a collaboration between an industry research institute and a forensic science laboratory.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by illustrating how data can be collected, stored, and managed within the forensic science laboratory for research purposes beyond casework.

Without dispute, the forensic science laboratory's main purpose is investigation of crime science evidence. Laboratories are funded to provide this service to the criminal justice system. Another, less-developed but no less important, function of the forensic science laboratory is research. It is difficult to conduct both investigation and research within the forensic science laboratory because investigation always takes precedence over research. Additionally, investigative analysis must be completed in short amounts of time (e.g., days or weeks), while research projects can extend over longer periods of time (e.g., years). The urgent request demands immediate attention; time allotted to the research project must be allocated between urgent requests.

The disconnection between the forensic sciences and research science is well documented.¹ It has been argued that this disconnection is the cause of failures within forensic science.² Therefore, the connection between forensic science and research science must be developed so that forensic science advances and the culture of research science pervades forensic science.^{3,4}

This presentation details how a collaboration between the Institute for Linguistic Evidence in the United States of America and the Forensic Science Centre in Croatia is conducting research in forensic linguistics. At the Centre, anonymous letters in Croatian have been collected in relation to crime scene investigation. These anonymous letters and known exemplars from suspects have been used in forensic handwriting examination and other types of investigative methods. Such data can also be used for research purposes.

In order to convert data from its investigative purpose to a research purpose, the forensic laboratory must consider three issues: storage, management of access, and experimental designs.

Storage: For casework, the obvious storage of items is within the case folder. Each case has its own folder, and so linguistic data is distributed over the case management system in folders where the case happened to involve linguistic evidence. For research, the items must be stored in a central repository that is designed to hold, identify, and use the items. Exact copies of the linguistic evidence in the case folders must be replicated for storage in a central repository.

Management of Access: For casework, the obvious management of access must follow chain of custody and peer-review standards. The investigative items are tracked and tagged within an evidence system. The people who have access to the data are employees of the forensic laboratory. Access to the investigative items is restricted to the forensic scientists conducting the examination and any supervisors who may be conducting peer review of the examination. For research, it is important that researchers who access the linguistic evidence also follow chain of custody. The access must be enlarged because some researchers may not be employees of the forensic laboratory. For instance, researchers may be statisticians, software developers, and linguists who work with the forensic scientists. These researchers must comply with the forensic science laboratory's standards for handling and encrypting data; they cannot remove data from the central repository, and they cannot give access to the central repository to others who are outside the research team. Confidentiality and privacy are shared values in both casework and research.

Experimental Designs: For casework, the experimental design is determined by the facts of the case. For research, the purpose of the research can drive the development of experiments beyond the original question posed by the facts of the case. For example, in casework the issue may be authorship, but additional experimental designs may allow the data to be used for threat assessment, suicide note assessment, predatory chat, and other issues in forensic linguistics.

Research within the forensic science laboratory is feasible. It takes time and effort to select the research partner. Such collaboration is a feasible way for forensic science to connect with research search, while maintaining its primary purpose.

Reference(s):

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3. Mnookin, J. et al. (2011). The Need for a Research Culture in the Forensic Sciences. 58 *UCLA Law Review*. 725(2011).
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Forensic Science Research, Forensic Linguistics, Forensic Science Laboratory