ATTITUDES TOWARD FORENSIC SCIENCE: A DISCONNECT BETWEEN EXPECTATIONS AND REALITY

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ABSTRACT

Following the development of the Attitudes Toward Forensic Science (ATFS) instrument (Horton et al., 2012), students across various tertiary institutions were surveyed to measure their: perception of popular media as a motivator to study forensic science; personal interest in forensic science; perspective of forensic science as a science; and perspective of forensic science as a profession. The focus of the study was changed from a single survey to pre- and post-unit completion testing, in order to compare not only the teaching/learning experience across the institutions, but also the efficiency and effectiveness of each individual unit. However, before pre- and post-unit completion testing could be utilised effectively, the observable differences in a single data collection were ascertained along with the psychometric properties (reliability and validity) of the instrument itself, in order to determine what constructs were truly being measured. The data underwent a preliminary Exploratory Factor Analysis (EFA) to identify the underlying relationship between measured variables, which established a tenable model of the data. After a second round of surveying students, Confirmatory Factor Analysis (CFA) was undertaken to determine how well the data fit the hypothesised eleven-item, three-factor model. The three factors and the overall scale were examined for evidence of internal consistency using Cronbach's alpha. The emergent model has provided a better understanding of students' attitudes toward the discipline of forensic science. The disconnect between our anticipated a priori model and the reality of the respondents' attitudes illustrates the importance of addressing measurement issues of reliability and validity when exploring contemporary affective concepts.

REFERENCES

Horton, R.C., Kelly, T.L., Lenehan, C.E., Lennard, C., Lewis, S.W., Lim, K.F., Roux, C., & Southam, D.C. (2012). Assessing Students' Attitudes Toward Forensic Science: Collecting an Expert Consensus. *Forensic Science Policy & Management: An International Journal*, 3(4), 180-188.

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