

EVALUATION OF COMPUTER ETHICS: CONFIRMATORY FACTOR MODELS USING PROC CALIS

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ABSTRACT

The computer is considered one of the most essential technological advances and has become an everyday tool. Many tertiary institutions have become heavily dependent on computers, Internet and information systems for educational purpose. Computers and the Internet also represent many people, organizations, and governments. However, at the same time they raise some ethical issues such as unauthorized access and use of computer systems, software piracy and information privacy. This study proposes the employment of computer use and computer security concepts for investigating students' ethical conduct related to computer ethics. Specifically, an ethical computer awareness (ECA) construct concerning computer use and security is developed and validated. The process of evaluating a measurement instrument for reliability and investigating the factor structure are discussed using the scale of ethical computer awareness (SECA). SAS[®] procedures served to provide an indication of the internal consistency, that is, reliability with PROC CORR, to explore the factor structure with exploratory factor analysis using PROC FACTOR, and to verify the factor structure with confirmatory factor analysis using PROC CALIS of the measurement instrument. The ECA construct developed from the study could be useful to research a wide range of computer ethics in the future.

Keywords: SAS PROC CORR, SAS PROC FACTOR, SAS PROC CALIS, Confirmatory Factor Analysis.