Personality, Mood and Music Listening of Computer Information Systems Developers: Implications for Quality-of-Work

Teresa Lesiuk, University of Miami, USA
Alexander Pons, University of Miami, USA
Peter Polak, University of Miami, USA

ABSTRACT

This research examines personality type, trait mood, and use of music listening by 32 professional computer information systems developers (CISD) from two different IT environments in south Florida. Improved quality-of-work via use of individually preferred music listening has previously been reported in CISD. Music listening, offering an opportunity for improved positive mood, has been shown in the psychological literature to improve workplace task problem-solving and cooperative behaviors. Prevalence of basic personality type preferences was measured with the Myers-Briggs type inventory (MBTI). Trait mood, also known as individuals’ emotional dispositions, was measured with the multiple affect adjective check list (MAACL). Results from this exploratory pilot survey indicate a significant prevalence of introversion, thinking, and judging types in CISD with greater negative trait mood for introversion and feeling types. Music listening trends by type are reported, including findings such as extraverts listen to music twice as much than introverts, and feeling types twice as much as thinking types. The findings and recommendations have important implications for managers of computer information systems developers and, as well, may be generalized to similar work contexts. [Article copies are available for purchase from InfoSci-on-Demand.com]

Keywords: Information Systems; IT Professional; Mood; Music; Personality, Stress; Quality-of-Work

INTRODUCTION

Several early investigations into the use of music in the workplace report improved mood and work-performance (e.g., Oldham, 1995; Wokoun, 1969). More recently, it has been suggested that pleasant mood responses (i.e., positive affect) enhance creative problem-solv-
ing ability and increase performance on tasks (Estrada, Isen, & Young, 1997; Isen, 2005). Additionally, an information processing model, known as the affect infusion model, suggests that affect or mood is most influential when tasks are complex and require highly generative processing (Forgas & George, 2001). The designing of systems requires developers to generate ideas beyond the information given and in the process their moods influence what is retrieved and used from memory. This process has implications for CISD quality-of-work of design and implementation projects and the time spent on tasks.

The link between music listening and improved task-performance was examined in the moderately high-stress occupation of computer information systems development (Lesiuk, 2005). Although improved work performance was attributed to enhanced mood (i.e., positive affect) via the music listening, there was no account of the individual differences in the use of music listening for work. The present study accounts for different personality types, corresponding trait mood experiences, and trends in the use of music listening. Findings of the study with 32 professional developers are reported, followed by recommendations for managers of computer information systems developers.

The remainder of the article is organized as follows: A review of relevant literature provides a theoretical basis for the research questions and the proposed research model. Details of methodology are presented, followed by the results section. Finally, the article concludes with discussion of the results, implications for practitioners, and suggestions for future research.

LITERATURE REVIEW

The Work Context of Computer Information Systems Developers

Computer information systems consist of application software created to deliver business, science, or educational information to people (or users) in an organization. The nature of the business of creating these systems is competitive and frequently involves aggressive deadlines. The designers and developers of these systems are required to be highly innovative and efficient in the face of constant time pressures.

. . . information system development [ISD], because it is ineluctably entwined with disruptive organizational change processes, is potentially a highly stressful experience. ISD entails change, conflict and uncertainty; jobs and vested interests are threatened, users refuse to cooperate with designers, win-lose power struggles break out, and so on. Moreover, IS projects are often large and complex and are often under-resourced and subject to exacting deadlines. (Wastell & Newman, 1993, p. 123)

Longenecker, Schaffer and Scacuzo (1999) surveyed the causes of stress among 187 information technology (IT) professionals working in over 20 large U.S. organizations. Eighty-eight percent of the participants, 60% male with an average of 15-plus years of IT experience, reported their work to be more stressful compared to five years ago (44% finding it a great deal more stressful). The leading consequence of the stressors was increased frustration, which can “negatively impact a job that requires high levels of discipline, focus, and systematic thinking” (p. 73).

Fujigaki (1993) reports that 42% of all design faults are directly attributable to programmer stress with different forms of stress occurring throughout the software work phases of systems development. For example, high anxiety and depression were reported during the requirements-definition and design stage (involving planning and designing a software system), while during the coding phase, the stress took on the form of irritability and falling morale.
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