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Use of Apps to Improve Efficiency of Ergonomic Evaluations: A Case Study on Office Workstation Assessments

Z.J. Harrison and A. Subramanian

JFAssociates, Inc.
Vienna, VA, USA

Corresponding author's Email: zachh@jfa-inc.com

Abstract: This work details one of the alternative methods to traditional hard copy data collection and reporting through the development of a mobile application for the purposes of performing ergonomic evaluations of office workstations. The mobile application was developed as a test phase (utilized by certified ergonomists) through the utilization of existing Microsoft applications in conjunction with a mobile excel application file. This paper outlines the stages of the development process to create this tool specifically, the usability testing procedures and the functionality of the application are discussed. Additionally, a case study is presented and time analysis conducted to determine changes in average ergonomic evaluation completion times based on historical data. The analysis indicated a significant reduction in average time spent performing data processing and reporting as well as a reduction in average time spent collecting data. Finally, experiences using the application and future plans are discussed.

Keywords: Excel, Data Validation, Mail Merge, Anthropometric, Usability