Assessment of Students' Computer Skills with Usability Testing as a Tool: A Case Study

B Kattel[1] and J Dent[2]

[1,2]Morgan State University
1700 E. Cold Spring Lane
Baltimore, MD 21251

Corresponding author's Email: bheem.kattel@morgan.edu

Author Note[1]: Bheem Kattel is a faculty in the industrial and systems engineering department at Morgan State University. His expertise is in the field of ergonomics/human factors and occupational safety and health. His research interests are time and motion study, manual materials handling, eye-tracking systems, health and safety issues, and usability testing.

Author Note[2]: Jamal Dent was a student of industrial engineering at Morgan State University. He recently graduated with a bachelor's degree in industrial engineering.

Abstract: The research entails using a usability test to assess the skill levels of students in Microsoft Word, Microsoft Excel and Microsoft PowerPoint. The focus of this research is to assess the skill that a student, who has matriculated through the Industrial and System Engineering Department, has gained. This will be done by comparing the skill sets of freshmen students to the students in senior years. The study was conducted with 20 students (10 freshmen and 10 seniors), who performed certain predesigned tasks in Microsoft Word, Microsoft Excel, and Microsoft PowerPoint. These tasks were recorded in a usability testing system using Morae Recorder and Morae Observer software programs. Morae Manager software program was utilized for analyzing the data collected from the experiments. Some of the parameters that were evaluated included; time on a task, average number of errors, participant needing help and other observations deemed pertinent to the study. The study was based on the assumption that the students in every freshman class would have the same skill level when they enter college.

Keywords: Morae recorder, Morae Observer, Morae Manager, Usability testing