

MAYBE THE MILITARY SHOULD BE NICER

Kaley Geyer (Dr. Martin L. Tanaka) Department of Engineering and Technology Western Carolina University, Cullowhee, NC 28723

If asked, most people would probably tell you that military officers are generally not thought of as being the most encouraging of people to military personnel under their command. So if people are treated differently and have different moods, how does that affect their performance on daily tasks? This research study sought to answer this question by evaluating performance during a series of physical balance and stability exercises. Two testing conditions were created, a good mood and a poor mood. A good mood was induced by exposing the participants to friendly and encouraging experimenters. In contrast, for the poor mood the experimenters interacted minimally with the participants, being respectful and professional, but generally unsocial. This study was designed as a repeated measures study with participants randomly divided into two groups. All participants signed an informed consent prior to participation in the study. Each group consisted of six participants, three male and three female, between the ages of eighteen and twenty-five. Each group was tested under both conditions with the first group tested under good mood followed by poor mood conditions and the second group tested in the reverse order to avoid testing order bias. To further avoid bias, this was a blind study with the participants not informed of the test condition being manipulated until after all study data was collected. The data gathered from this study was compared using match pairs to determine the change in each individual's performance between the two testing conditions. The subjects' movements were recorded with a gyroscopic sensor that measured roll, pitch, and yaw angles while the participants performed three balance and stability tasks. These tasks included aiming a mock M-16 rifle at a target and holding aim for sixty seconds, keeping the sensor level while walking in a circle, and stepping from one Bosu ball to another while maintaining an upright posture. We hypothesized that when people are treated more poorly, they will have lower performance scores on all parameters of the study versus performing under the same parameters when treated kindly. The data has been collected and is currently being analyzed using Matlab to calculate kinematic variability parameters including RMSx, RMSy, RMSr, path velocity, and 95% ellipse area. These data will be analyzed statistically using SPSS to determine if there is indeed a correlation between mood and performance. The results gathered from this study may not only be applicable to the military, but also to the treatment and performance of people in the general workforce and could result in improved workforce productivity.

Additional Abstract Information

Presenter: Kaley Geyer

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