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A Cut Above the Rest: Team Performance as a Function of Team Cohesion, Team Familiarity, Team Effectiveness, and Soldier Lethality

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Author Note: The authors listed above are currently seniors at the United States Military Academy at West Point and worked under the direction of their advisor, LTC Joshua Eaton. This project was completed as part of a graduation requirement for their senior capstone course. They are working with Program Executive Office (PEO) Soldier. The authors would like to thank PEO Soldier, the Department of Systems Engineering, and LTC Eaton for all their support.

Abstract: The objective of this study is to gather and analyze data regarding theoretical constructs, including *Team Cohesion*, *Team Familiarity*, and *Team Effectiveness* in order to determine their differential impact on *Team Performance*. Data collected from each cadet team during and before the annual USMA Sandhurst competition using psychometric instruments is used to study the performance of each team to gain insights on how the theoretical constructs influence their performance. This study develops and tests a Soldier Lethality proxy measure using numerical data collected before and during the competition, also used to predict *Team Performance*. Linear regression models are used to determine the significance of the theoretical constructs and the proxy measure on *Team Performance*. Our findings show that the theoretical constructs were not statistically significant when evaluating *Team Performance*. However, the Soldier Lethality measure yields a significant result (p-value = 0.002; $\beta = 0.5$; $R^2 = 0.22$).

Keywords: PEO Soldier, Team Performance, Soldier Lethality, Proxy Measure, Psychometric Survey Instruments