Assessing Data Analytics Readiness as a first step to Predict Incident Probability: A Replication

By: Firzana Syazania, Caleb Pollard, Madison Culver, Shawn Bergman, & Tim Ludwig

HR SCIENCE
WHERE SCIENCE MEETS HR

Introduction

Aim is to implement the Data Analytics Readiness Tool (DART) & replicate past findings

- Examine the data capabilities of a large oil refinery to better understand their measurement capabilities
- Determine proper and fitting analytic methodology based off DART scores
- Maximize organizational safety by using the the DART, analytics, and current safety practices

References

Compagnone, M. & Ludwig, T.D. (in preparation). DART: A Data Analytics Readiness Assessment Tool for use in Occupational Safety.

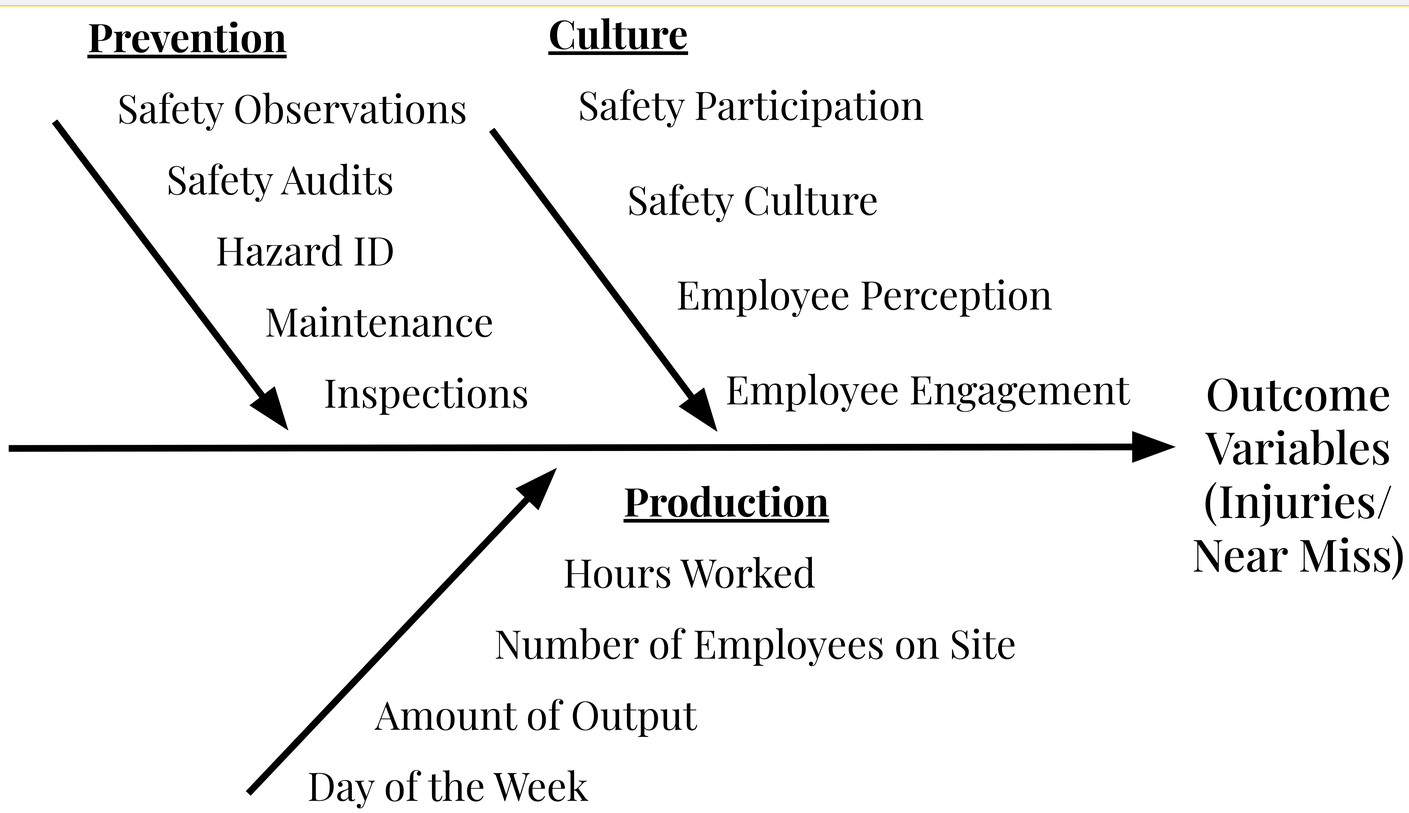
Ezerins, M. E., Ludwig, T. D., O'Neil, T., Foreman, A. M., & Açıkgöz, Y. (2022). Advancing safety analytics: A diagnostic framework for assessing system readiness within occupational safety and health. Safety science, 146, 105569–105581. https://doi.org/10.1016/j.ssci.2021.105569

Granowsky, N., Leslie, J., Açıkgöz, Y., Ludwig, T., & Bergman, S. (2023). Do Safety Practices Matter? The Impact of Safety Reporting on Workplace Incidents [Poster]. Society for Industrial and Organizational Psychology Annual Conference, Boston, MA, United States.

Hinson, P., Ferber, L., O'Neil, T., Griffin, B., Driest, H., Acikgoz, Y., & Ludwig, T. (2021). Developing an Analytics Strategy to Describe, Diagnose, and Predict Workplace Safety Outcomes [Paper presentation]. Appalachian State University HR Science Team.

DART Process

Problem Framing ⟷ Analytics Problem Framing ⟷ Data Protocols ⟷ Method Selection ⟷ Data Analysis



Expected Results