



Gordon Hackett

PLTW: Intro to Engineering and Design

Regina Jr./Sr. High School

Centro Incorporate

Part I: Overview of Business

- Centro Inc. was founded by Dick Rozek in 1970 near Oxford, IA. The company had a limited budget and persevered through many personal challenges and hardships.
- Centro's vision is to be the most successful rotational molding company in the World.
- Centro does offer its custom plastic molding to an assortment of companies such as John Deere, Caterpillar, and Gunner Kennels

Part II: Job Specifics

- **Decision Matrix and Flow Charts:** Data Driven Decisions
- Specifications:** Centro uses specific equipment to make custom parts. The equipment has a specified tolerance and both the buyer and Centro must agree upon this tolerance. Once agreed, Centro must insure all parts are made to certain tolerances.
- Pathway:** To aide in this insurance decision matrix and design problem flowcharts are created.

Part III: Introduce the Problem

- Problem:** Centro has been having a hard time retaining new manufacturing employees. It is thought that new employees are having trouble following through with the work instruction process.
- Goals:** Review the current training module and provide feedback. Research primary research articles and provide evidence for what works, make proposal for use of

Part IV: Background

- Applied Statistics:** Within Unit 3 of the PLTW course students are required to be able to solve for standard deviation, mean, and upper/lower limits. Data is then used to determine if specific pieces are outside of a specified tolerances.
- Centro Needs:** Using MiniTab and Tolerance calculations, we will determine if the GIF work