**Name(s)**

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**Project Number**

# J1611

**Project Title**

## Location, Location, Location: The Impact of a Player's Starting Location in the Game of Risk

**Abstract**

**Objectives/Goals**

The objective was to discover the effect of a player's starting location on outcome in the game of RISK. I hypothesized that consolidation of a player's initial territories and involvement in one triangular relationship (where three players could all attack each other equally) would each increase the likelihood of winning by 10%.

**Methods/Materials**

A computer program simulating the RISK game was developed and simulated 100,000 games. For each game, the simulation randomly assigned players their initial territories and went through all the steps of a RISK game, including setup, diplomacy, attacking, and fortification.

**Results**

The four territories in Australia outplayed every other territory and continent by far. The average Australian player controlled 20.5 territories at the end of a game, while the overall average per player was 5.2 territories. Players whose initial territories were non-contiguous did twice as well as players with contiguous initial territories. Players starting in continents with no triangular relationships (Australia and South America) averaged approximately 12 territories held at the end of the game, while players starting in continents that were in one triangular relationship averaged approximately 3 territories. The results did not support the hypothesis.

**Conclusions/Discussion**

Starting in Australia is more likely to lead to a successful outcome. The relative size of the continents may have impacted results. Australia is a small, isolated continent with four territories and one corridor of attack. The benefits of starting in Australia appear to outweigh the hypothesized benefits of starting with consolidated territories and the presence of a triangular relationship.

**Summary Statement**

This experiment tested the impact of starting location on a player's chances of winning in the game of RISK.

**Help Received**

Computer program troubleshooting assistance by Gerald Fitzgerald.