The purpose of this investigation is to see if statistical models and computers can be used to find a swimmer’s optimum combination of initial 50 meter time, 100 meter split time and first 150 meter split time to minimize their total 200-meter time.

To the researchers’ knowledge there has not been an experiment that uses statistics and computers to study swimming in this way.

This experiment uses many statistical applications including multiple regression, policy capturing, response surface models and evolutionary operations with the data-analysis aid of Student SYSTAT. Each individual’s judgment data is modeled by multiple regression. After the first empirical data is collected, the response surface is shifted toward their actual swimming capabilities. As data is collected, the model will change until no substantial improvements can be made.

This application is the third year of investigating the potential of this methodology to optimize performance in sports.