



A Case Study: A Multivariate Study of Predictive Dialer Attributes with the Goal of Improving Telephonic Engagement

The Problem:

A disease management company reaches out to its potential patients through its outbound call centers. The initial calls welcoming the patient into the program are completely unsolicited – in most cases the patient doesn't even know they were eligible for the program or that the program existed.

A successful call was defined as one where there was a dialogue with the right party. The success rate of these welcome calls was considered subpar at under 10%. This low engagement rate put the efficacy of the programs in jeopardy.

The Solution:

A key contributor to telephonic engagement that was not scrutinized up to that point was the predictive dialer – the computerized system that automatically dials batches of telephone numbers for connection to agents assigned to call campaigns. A series of interrelation digraphs¹ were created to determine the specific dialer attributes to be investigated. The digraphs established the relationship of the attributes to each other and to member engagement.

Experimental trials of different attribute settings were designed using Design of Experiments. Design of Experiments is a widely-known statistical technique for designing and performing experiments to investigate processes where the desired output depends on many factors without having to tediously and uneconomically run the process using all possible combinations of values of those variables. By systematically choosing certain combinations of variables it is possible to separate their individual effects. Using DOE, a robust design would be determined while minimizing the amount of work and disruption to operations required for field measurement.

The Outcome:

Using insights derived from the experimental trials, a set of call strategies were created that addressed optimal dialer pacing, when members should be called back after failed attempts, and how. **Utilization of the recommended call strategies resulted in improving the welcome call success rate from 9.8% to 22.8%.**

About Exceptional Outcomes:

Exceptional Outcomes is a consultancy with specialties in inbound and outbound call center optimization, operations research, business intelligence and process excellence. They deliver training and software applications to clients in both the public and private sectors.

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. 1. Information on Interrelationship Digraphs may be found at <http://asq.org/learn-about-quality/new-management-planning-tools/overview/relations-diagram.html>