

Proof of Concept Research

Accepted for publication in
Philosophy of Science

Steve Elliott
Arizona State University
srellio@asu.edu

Available:

Publisher: TBA.

Preprint: <http://philsci-archive.pitt.edu/16697>

(Please support not-for profit community-based preprint servers such as PhilSci Archive (philsci-archive.pitt.edu) and PhilPapers (philpapers.org)).

Abstract:

Researchers often pursue proof of concept research, but criteria for evaluating such research remain poorly specified. This paper proposes a general framework for proof of concept research that knits together and augments earlier discussions. The framework includes prototypes, proof of concept demonstrations, and post facto demonstrations. With a case from theoretical evolutionary genetics, the paper illustrates the general framework and articulates some of the reasoning strategies used within that field. This paper provides both specific tools with which to understand how researchers evaluate models in theoretical evolutionary genetics, and general tools that apply to proof of concept research more generally.