

Multimethodology

Combining Management Science Methods

A Rich Picture Representation of my PhD Study so far

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E·S·R·C
ECONOMIC
& SOCIAL
RESEARCH
COUNCIL

The Journey Begins:



Undergraduate Masters Dissertation:
Combining SSM and DESM in an Athletics Club

Multimethodology
Soft Systems Methodology (SSM)
Discrete Event Simulation (DESM)
Management Science

"This Study and my interest in Multimethodology could go a lot further in theory and practice"

Introduction

This rich picture representation gives a holistic view of the focus and findings in my study so far. It also communicates the future direction of my research which focuses on the use and development of Multimethodology in Management Science (along with some emotions!)

Definition of Multimethodology

Multimethodology is

"Combining together more than one methodology (in whole or part) within a particular intervention. Thus it is not the name of a single methodology or even of a specific way of combining methodologies together. Rather it refers to the whole area of utilizing a plurality of methodologies or techniques or techniques within the practice of taking action in problematic situations". Mingers and Gill (1997)

Combinations in Literature and Practice



There have been many practical applications of multimethodology in Management Science documented in literature. I have collected examples of these combinations and categorised them to see:

- What has been tried
- The feedback and success rates
- Practical and Theoretical approaches
- Areas of application

in order to better understand the industry, academia and developments. Here are some examples:

Multi-Criteria Decision Analysis (MCDA) and Conflict Analysis (Drama Theory)



This study by Losa and Belton (2006) looks into developing a framework for multiparty and multi-criteria problems which "involves conflicts among people and goals". The paper illustrates the "synergy" between multi-criteria methodologies.



Soft Systems Methodology (SSM) and Discrete Event Simulation DESM



This study by Mingers and Kotiadis (2006) was applied to waiting times at an East Kent Hospital system and praises the application of multimethodology in this practical and theoretical case study.

Soft Systems Methodology (SSM) and Data Envelopment Analysis (DEA)



This study from the Kent Business School by Mingers, Liu and Meng (2005) used a combination of SSM and DEA to "Evaluate the basic research performance of the Chinese Academy of Science". SSM helped model the complex problem situation and highlighted certain problems before the application of DEA

Cognitive mapping (CM) and System Dynamics (SD)

This PhD study will be a detailed analysis of generic Management Science combinations.

It will focus on a variety of combination ideas with an inclusion of methods such as:

- Soft Systems Methodology (SSM)
- Strategic Choice Analysis (SCA)
- Cognitive Mapping
- ... and many more!

The conclusions of this thesis aim to have theoretical and practical impact to help give a positive direction to successful multimethodology applications

- My PhD Study - A Detailed Analysis of Generic Combinations



... here's to the future of multimethodology!

Methodology:

- Empirical Research and application
- Survey's with practitioners
- Theoretical applications pulled from philosophical and theoretical knowledge

Outcome:

- Advise to practitioners
- Theoretical development in combining Management Science methods
- Recommendations for further applications and development



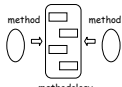
This section looks at the history and the main writers behind the development of multimethodology. Five main writers have been identified and I have looked into the philosophy behind their thinking. Although all approach the idea of mixing methods there are different approaches in relation to:

- Paradigm views (Hard / Soft / Critical)
- Mixing across paradigms
- Frameworks and approaches to mixing methods
- The degree of practical or theoretical thought to approaches

The main writers and their general thoughts are illustrated here:

Mingers

Developed a Multimethodology framework with a focus on using parts of methods to create the best methodology for the problem situation transcending paradigms



Midgley

Like Mingers, looks at creatively designing methods but also has a strong view of the 3 paradigms which can restrict practical application.

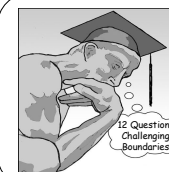
Ormerod

A Practical thinker who mixes management science methods freely according to the problem situation



Jackson

A critical systems thinker that has a view of 3 paradigms (inspired by Habermas) that are not easily mixed but he explores the idea of mixing methods



Ulrich

Critical pragmatism with a theoretical and critical approach based in heuristics, challenging the boundaries of Management Science methods.

Philosophy, Theory and History of Mixing Methods