

# Direct Action or Social Nudge?

## Effective policy levers helping families select schools

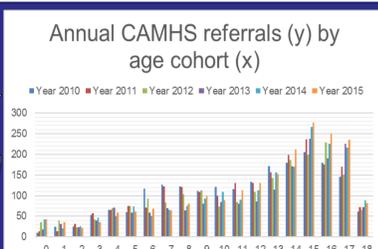
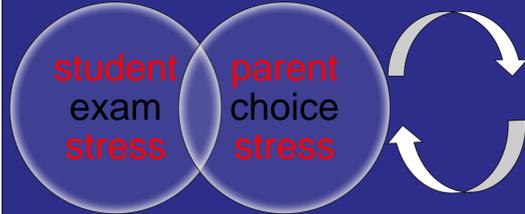
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### Introduction

Dynamic Problem – Competitive Impacts



#### Synopsis

**BACKGROUND.** Cross sectional studies suggest a prevalence of mental health problems from the age that children change to secondary schools in England but there are fewer longitudinal appraisals of these problems and which policies can help reduce early onset commence with referral to Child and Adolescent Mental Health Services (CAMHS). Model-based multimethodology offers potential insights for this single case study based in an urban setting of an English city.

**APPROACH.** Using group model building scripts to collect views from a multi-agency group of expert practitioners, the impacts of a competitive urban education were induced to agree a concept model where family system stressors include outdated knowledge of schools and continuous exam preparations. Parent decision making behaviour was deduced to understand drivers behind school selection. Simulation was employed to abduce system sensitivities predicting long-term socio-emotional impacts before comparing intervention policies.

**OUTCOMES.** Where families face similar competition pressures in Plymouth's state education when selecting secondary schools, some families may pick providers unable to meet needs of adolescent students. Families at-risk adopt autocratic styles of decision making jeopardising full and regular conversations with their child, preceding wellbeing-decline referrals. Directly addressing the identified, exogenous competition stressors by education or health offers little improvement but exploiting system timing sensitivities, a gamification policy supporting family communications helps address wellbeing decline following the wrong school choice.

**LEARNING.** The modelling multi-methodology induces group views on the problem structures, deduces parental decision bias and abduces policy improvements. Policy simulation suggests that coordinated, multi-agency, social nudge using gamification improves over alternative, unilateral, directed act initiatives.

## Model Multi-Methodology

### Goals

- To build dynamic hypothesis explaining secondary school choice
- To propose policies that reduce CAMHS referrals

### Research Design Challenge

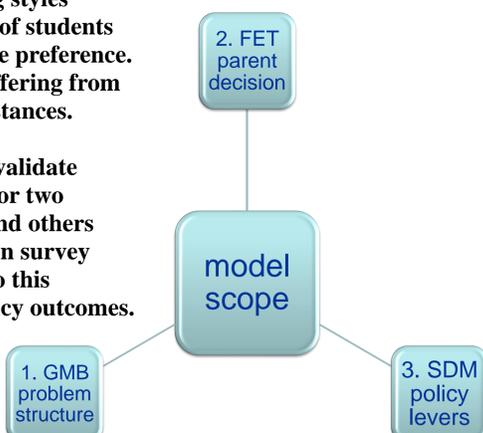
To design a modelling multi-methodology triangulating results for a single case study

Group Model Build (GMB) concept model validated by Health, Education and Council providing a problem structure.

Fisher Exact Testing (FET) validates decision parameters of families with different styles of decision making. Autocratic or decisive decision making styles can ignore some or many of the needs of students in favour of satisficing towards a single preference. Students and parents are at risk of suffering from reduced wellbeing under such circumstances.

System Dynamics Model (SDM) tests validate family system behavioural responses for two types of family: those with standard and others with special educational needs based on survey results. Policy testing can be applied to this Variety to understand unintended policy outcomes.

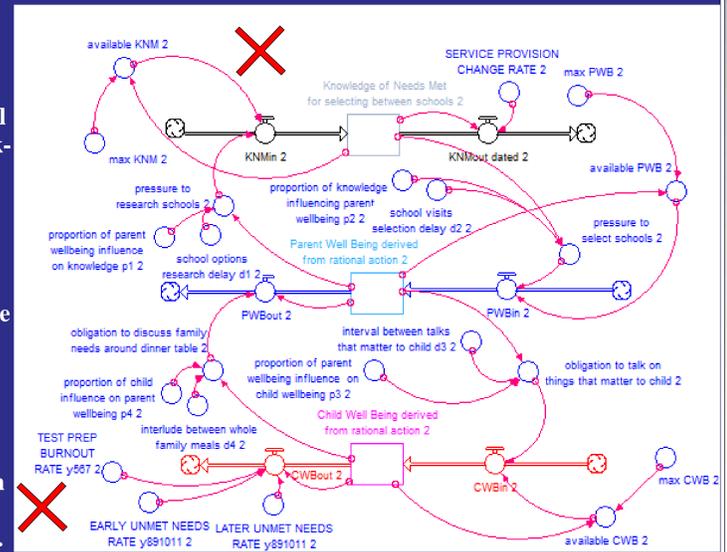
This research design contributes to Single Case Study approaches where triangulation of results infers greater confidence than any one element in isolation where System Dynamics enables results integration.



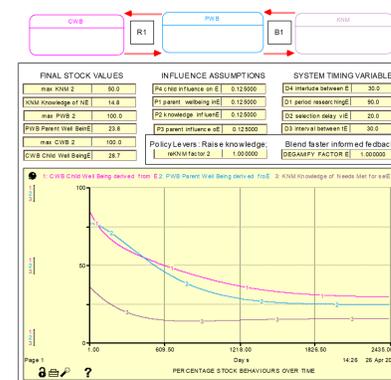
### System Dynamics Results

#### Actors and Decisions

Family emotions influence choice of secondary school. Emotional wellbeing is tracked to understand the relationships and explain how knowledge of different needs met by alternative providers may support parents and children before, during and after transferring from primary to secondary school. Policies countering exogenous stressors (marked 'X') offer limited improvements.

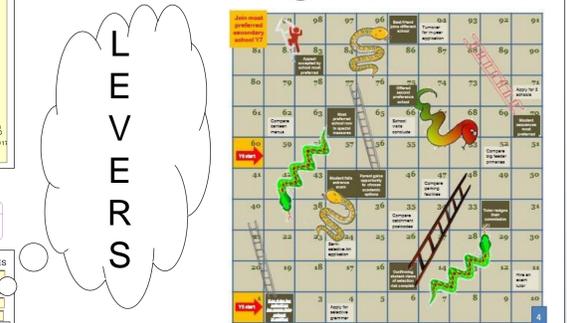


#### Feedbacks and Stocks in family unit



AUTOCRATIC BASERUN  
TYPICAL RESPONSE

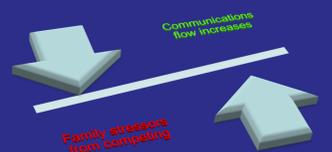
**X** GAMIFY



**=** POLICY OFFERS WELLBEING IMPROVEMENT

## Conclusions

- Policy outlook from multi-agency working confirm exam stressors for student and outdated knowledge stressors for parent.
- Countering perceived exogenous stressors from competition ineffective (<exams >information).
- Nudging families towards weekly debate on secondary school selection works e.g. gamification helps rebalance national competition policies.



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