

Timetabling Improvements

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Time Goals

- Reduction in core hours to 9am-5pm
- Average room utilisation of 75% of timetable slots
- 1-hour Lunch break between 12-2pm
- Minimisation of clashes

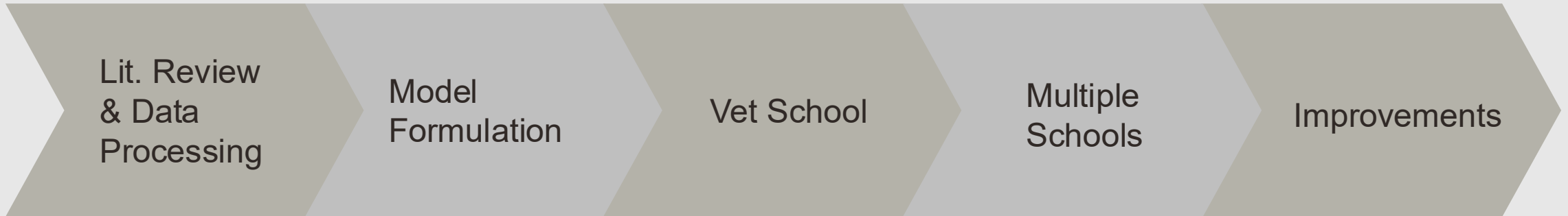


Motivation

08:00					
09:00					
10:00					
11:00	MATH4 Prob, Meas &			MATH4 Prob, Meas &	
12:00				MATH4 Prob, Measure &	
13:00	MATH5 Analytic			MATH5 Analytic	
14:00		M A T H O	M A T H O	MATHO Topics in Applied Operational Research -	MATH3 Financial Maths - Lecture 🏠 Lecture Theatre A
15:00			M A		
16:00					



Methods



Data challenges:
formatting,
redundant entries,
conflicting details

MIP

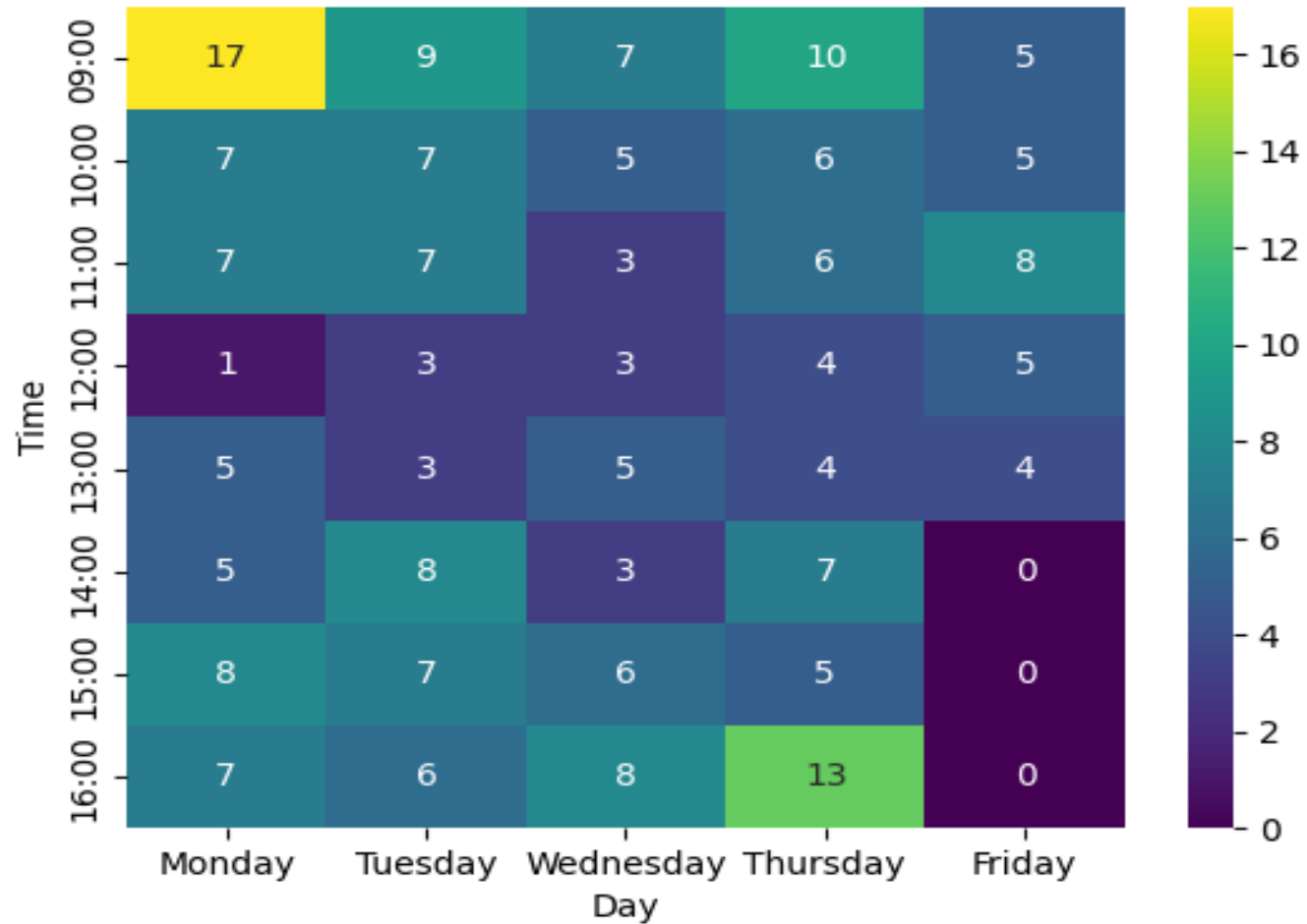
Vet School
tuning

Apply lessons
learned to
entire school
set

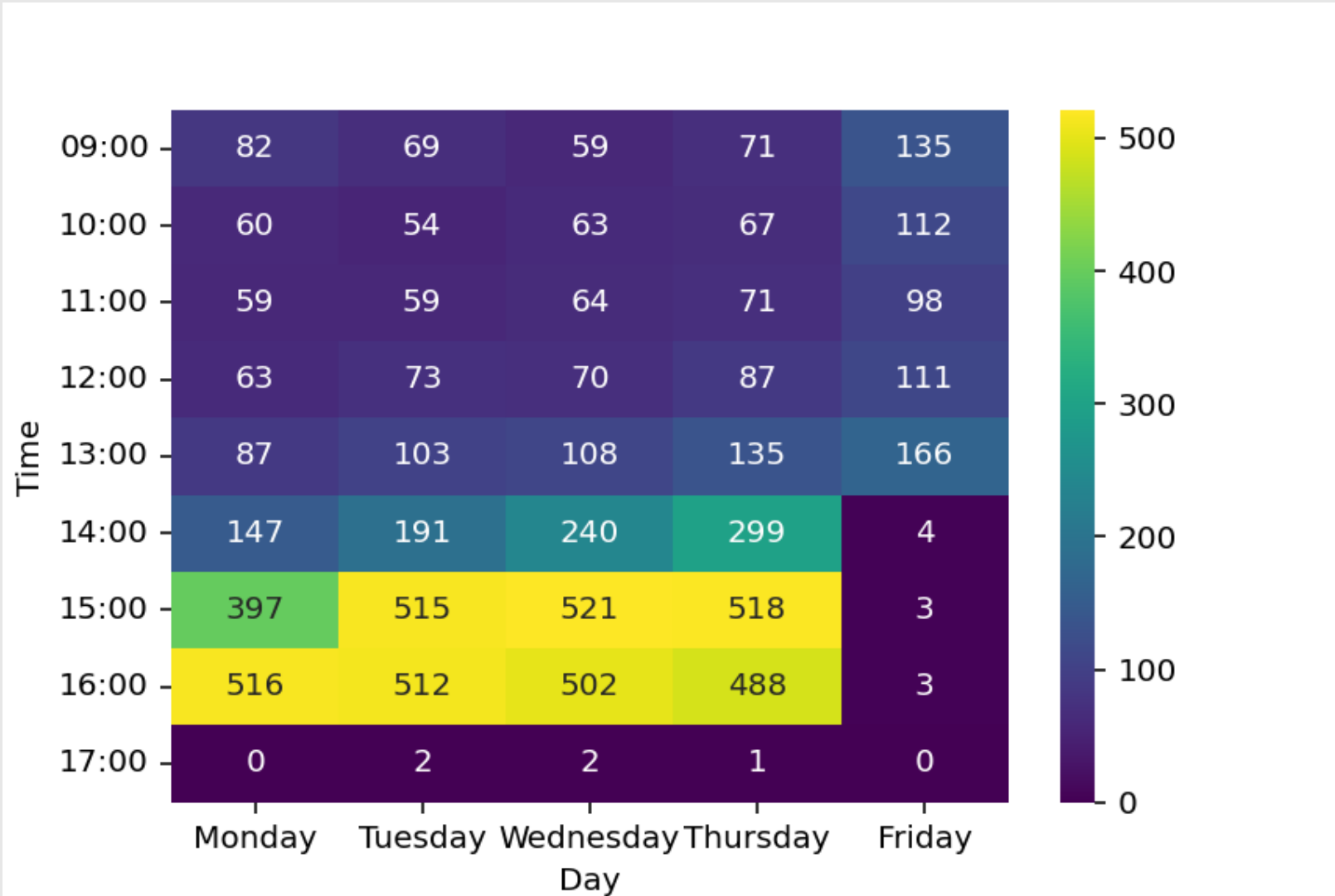
Genetic
Algorithm



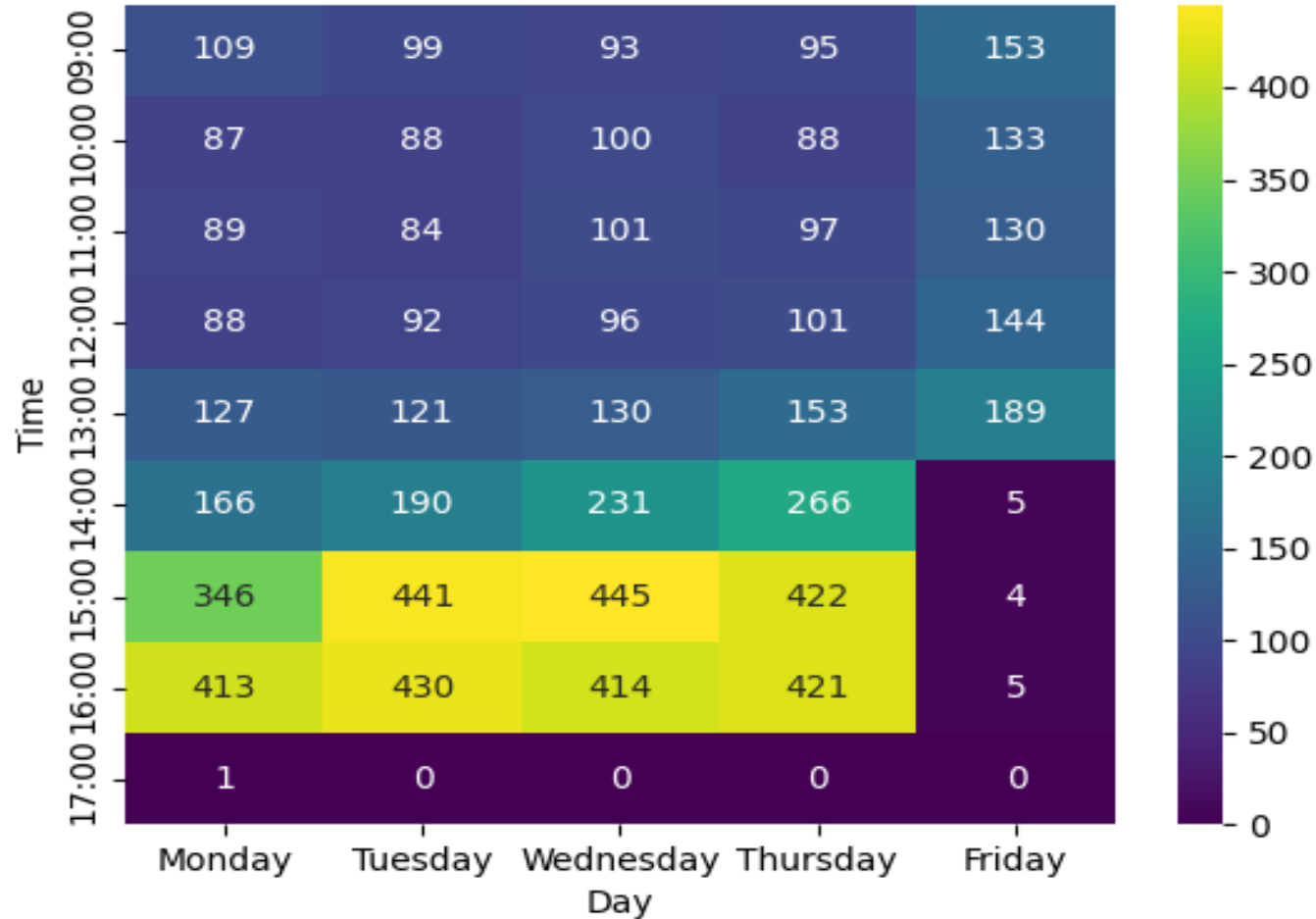
Vet School Results



Baseline Results



Improved Model Results

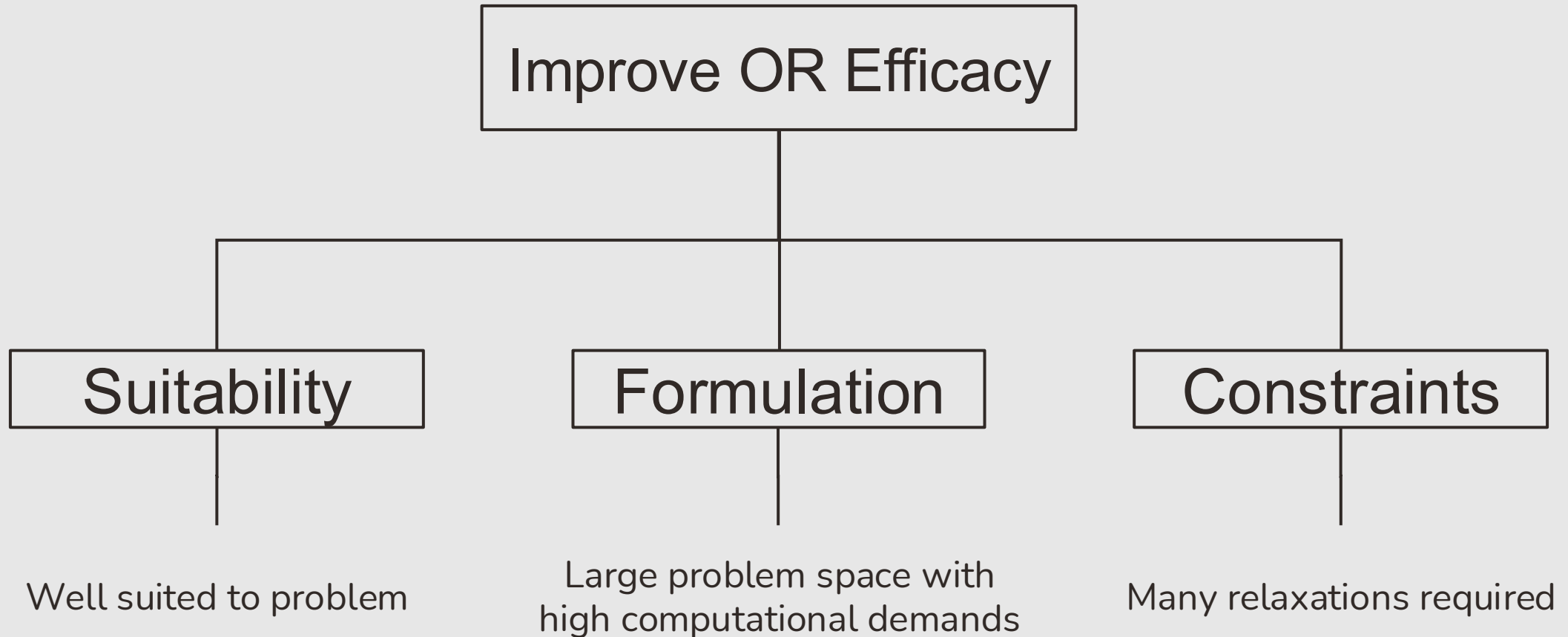


Metrics

Violations	Base	Improved
Clashes	9,431	8,019
Lunch Break	0	0
After 5pm	5	1
> 6hr / day	33,268	33,189
Friday Afternoons	13	14



Considerations



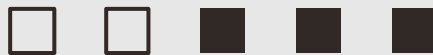
Recommendations

- Refine data entry
- Tiered deconfliction meetings
- Tracked “sub” degrees
- Push for fundamental changes in teaching format

Data Restructuring



Degree Options



Daily Layout



Thank You

Do you have any questions?

