Based on the documents read, I suggest that we go for the CDC framework, which consists of 6 steps and 4 standards.

(The results and Logical framework look easier to implement, but we do not have much details about it)

At this point I feel we need to focus on steps 3 to 5

**Step 3**: Focusing the Evaluation Design

Purpose, users, uses, questions, methods, and agreements.

Methods can be experimental designs, quasi- experimental designs or observational methods

**Step 4**: Gathering Credible Evidence

Indicators: Examples of indicators that can be defined and tracked include measures of program activities (e.g., the program’s capacity to deliver services; the participation rate; levels of client satisfaction; the efficiency of resource use; and the amount of intervention exposure) and measures of program effects (e.g., changes in participant behaviour, community norms, policies or practices, health status, quality of life, and the settings or environment around the program)

**Step 5**: Justifying Conclusions

Standards: Using explicit standards distinguishes evaluation from other approaches to strategic management in which priorities are set without reference to explicit values. In practice, when stakeholders articulate and negotiate their values, these become the standards for judging

whether a given program’s performance will, for example, be considered successful,

adequate, or unsuccessful.

Judgments. Judgments are statements concerning the merit, worth, or significance

of the program. They are formed by comparing the findings and interpretations regarding the program against one or more selected standards.

On demand bus problem

Step 3:

Purpose: If the on-demand bus transport will be beneficial for the Public and cost effective for the Government. What should be the judging criteria to start/stop the service

Step 4:

**Indicators:**

* Cost incurred by the Government during the trial period by plying one deck bus.
* How many passengers are using the bus service on a average( as compared to the 90 person bus capacity)
* What is the average duration of travel between 2 stops
* Are the normal bus operating in this same route? What is the difference between this bus and the normal bus
* Booking time- how fast a user can complete a booking transcation
* Waiting time- how long a commuter has to wait for bus to arrive
* Mobile app used optimization

**Metrics:**

1. Cost of a trip ODPB vs cost of normal bus
2. Booking time vs response
3. Trip duration of ODPB vs normal duration to arrive at a destination
4. Waiting duration to get a positive response
5. Mobile app able to show the empty seats during the trip to optimize the trip? The route can be different each time based on dynamic booking

Why the above needed?

All required data will need to be simulated (or get from Grab Shuttle plus?)

Step 5:

Standards:

->Cost of plying a normal bus vs cost of plying a ODPB( we should decide upon agreeable number)

->Number of people benefitted(we should set a number as standard)

What will be needed

* The charges supposed for the bus trip( per passenger cost can be $6.5, but is that cost of trip?)
* The route of travel of these ODPB (data available as per team 2’s paper)
* Grab shuttle plus already has this running in Punggol (Anyway to get the data?)
* Simulate data (for random bus stops between routes, in team 2’s) and random passengers generation
* We can get the data for Punggol/Shenton way/Too Koon for the existing bus routes and traffic

**Extra materials:**

1.

We could think of LP(as suggested by Pradeep) to formulate

Objective:

Maximize the **profit** during a trip.

Or Maximize the **number of passengers** during a trip

2.

The extra material (last year CA) gives some idea of how they had optimized the routes

In particular team 2 and team 8