

***PDSA Airplane Exercise***

**Session Description**

*The Airplane Exercise*: A small group activity to demonstrate use of the PDSA for making structured, measurable rapid cycle changes.

**Learning Objectives**

1. Demonstrate the basic concepts of rapid-cycle change using the Plan-Do-Study-Act approach to process improvement
2. Practice skills for using the PDSA approach to change
3. Learn how to use the PDSA approach with a change team in order to achieve a specific aim.

Assign team members to specific roles

|  |  |
| --- | --- |
| Change Leader: | Data Coordinator: |
| Pilot 1: | Pilot 2: |
| Scribe | Design |
| Design | Design |

Change Team Task

1. Design a paper plane using the materials provided.

2. Each of the two pilots should take a turn to fly the plane. Record the distance of each flight.

 No modifications can be made to the plane between flights. This first flight will give you your

 baseline measure. Now the change team can establish the **Aim and Measureable Goal**.

* Example increase the distance by 50% from baseline average of 20 feet to 30 feet.
1. After each test flight, the data coordinator records the distance travelled on the change

project form and on the graph. After each flight; briefly describe “what happened” during the flight and record the discussion in the *study* column of the change project form.

1. Based on the measurements, review the design of your plane and look for improvements (what can we do that will result in an improvement). Make only ONE change to the design of the plane, and repeat steps 1-3 until you have collected data for 3 cycles (original design cycle (baseline data) + 2 change cycles).

Use the change project report form to record all steps of the PDSA for each change cycle.

**Change cycle rules:**

* Only one design change per PDSA Cycle
* All planes must have wings and be able to glide
* Each design change modification must be flown by both test pilots