

TRAINING 101

Flight Plan: Motivation

Paper (check),
tape (check),
motivation
(check).

By Steven M. Dunphy and
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Do you struggle to find ways to motivate participants? The Paper Airplane Contest may be just the exercise to illustrate that all the motivation they need can be found in themselves. The exercise not only teaches motivation, but also touches on teamwork, leadership, and group dynamics. The childlike act of constructing a paper plane is usually motivation enough to get people involved.

When participants construct and compete in the Paper Airplane Contest,

they prove Abraham Maslow's motivational theory regarding intrinsic versus extrinsic rewards. An intrinsic reward is an internally experienced payoff, such as the feeling of accomplishment you get from a job well done; extrinsic rewards include money or promotions granted by others.

Researchers Kenneth W. Thomas and Betty A. Velthouse found that a worker's sense of impact is a major determinant of the strength of his or her intrinsic motivation. That theory may also be relevant

in the paper plane exercise if participants believe that their work produces immediate and measurable results.

Getting started

You need to divide participants into groups of two to six members. To ensure diversity, have them count off and then assign them randomly to a group. Give each team a number. Review the following flight terms with participants. You may want to create a handout or post these terms in the room.

Resistance. The opposition that a column of air exerts upon an object that tries to pass through it.

Drag. Resistance and turbulence combine to produce drag. Smooth shapes yield less turbulence (air fluctuations) and less drag; bulky objects yield more turbulence and more drag.

Thrust. Commercial airplanes use large propellers and jet engines to provide thrust or forward-directed force. Paper airplanes need the motion of your arm or the snap of a rubber band. For the exercise, you apply thrust only at launch, which means resistance immediately slows momentum and gravity forces the plane down.

Lift and pressure. As a plane speeds up, air moves over the top of the wings at a higher velocity than under the bottom of the wings, which creates reduced pressure underneath. That in turn creates lift.

Then say, “Four factors act upon a plane in flight: Thrust pushes it forward, resistance opposes it, drag slows it down, and lift counteracts the pressure of gravity.”

In the hangar

Each group makes and decorates a paper airplane. Group members should decide among themselves what type of plane they want to design and who will actually construct it.

Provide each participant with one 8.5-by-11-inch sheet of blank paper and each

team with a roll of clear adhesive tape. Tell the group, “Try not to make mistakes. You’ll receive only one sheet of paper per team member. From those papers, your team is to construct one airplane. Decorate your plane with an insignia, and put your team number on the plane in a place that’s immediately noticeable. That will make it easy for us to determine a winner.”

Suggest that the groups decorate their planes before folding them. You may also recommend that they appoint a design committee of some group members.

Taking flight

The contest has three rounds.

Round 1: Distance flown.

- Launch the plane firmly and at a slight angle upwards, which helps it achieve the maximum possible distance.
- Adjust the angle of the wings slightly to ensure that the plane reaches its ideal cruising altitude. Thrown correctly, the plane may fly as far as 30 feet.
- Have each group fly its plane. Allow one to three attempts.

Round 2: Distance flown with payload.

In this round, each team’s plane must transport a payload: one paper clip. Each group decides where and how to attach the paper clip. Again, allow one to three flight attempts.

Round 3: Design.

- Was the plane constructed in a manner that would maximize the distance it could fly?

- Was the plane constructed so that it could carry the paper clip payload?
- Is the plane pleasing to look at?
- Does the decoration support an overall theme?

Score one point for each win and partial credit (one-half of a point and one-third of a point) for second and third places.

The first two rounds are objective tests, with the winner chosen based on distance flown. The last round is subjective and can be based on your assessment or a vote by the class. Place the point totals on a form such as the example below.

Managers sometimes place too much emphasis on the need for extrinsic rewards. Participants in the exercise may discover that, depending on the task, intrinsic rewards are powerful motivators that cost little but result in great benefits for the organization.

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The Paper Airplane Contest Scoring Sheet

	Round 1: Distance Flown	Round 2: Distance Flown With Payload	Round 3: Design	Total
Team 1				
Team 2				
Team 3				