



Santa needs a new sleigh

Summary

This exercise is suitable for up to 18 participants. Three teams work in collaboration to design, build and test a simple two-wheeled cart that can carry a weight in safety. The cart has two sections - the chassis and the bodywork - which are designed by separate teams. The third team acts as coordinators and resource managers.

This session is designed to assess and develop the following skills:

Communication, influencing, managing team boundaries, problem solving, team development, team leadership, time management.

Materials

Copies of the team briefing sheet.

Flip charts, paper and pens.

One 30 cm length of string (to be used by the trainer as a cart harness).

One 500 gm load (to be specified by the trainer for example can of beer, a bag of pebbles or rice which must be loaded loose into the cart, a container of water, sweets that can be shared out at the end or perhaps three uncooked eggs!)

Resources as listed in the team briefing sheet.

Separate rooms for the three teams to work in.

Suitable area (preferably with a 1 in 3 incline over at least 4 metres) for testing the cart.

Timing

45-60 minutes.

Procedure

1. Explain the purpose of the activity, which is to consider the way in which teams can be both independent and interdependent in their roles. Alternative objectives such as team development, team leadership, communication, can also be specifically addressed, though these objectives should naturally emerge during the review stage.
2. Show teams where the cart will be tested (see item 6 below). Also specify what the load will be.
3. Form teams (which should, where possible, each be made up of participants from the same departments/ divisions).
4. Allocate specific tasks to each team, and hand out the briefing sheets. (All information is given to each team.)

5. Complete the design-and-build phases.
6. Attach the string harness and arrange for the cart to be tested on a 30 per cent (1 in 3) incline. If this is not possible, select a location which will give the cart a robust test.
7. The resource managers report on the remaining resources on how successful they were in achieving their objectives.
8. Review the complete activity in line with your implicit and explicit objectives.

Commentary

This is a practical activity which is fun to complete. It is of especial value where different departments take the view they are not part of a team but work to complete an independent function. This activity obliges them to consider the purpose of their department beyond this particular function. It also highlights work-related dependencies, and can help to correct misconceptions that departments may have about each other's attitudes, objectives, style, effectiveness, and so forth. There may be certain assumptions (e.g. on final design, timing, use of resources, etc.) which need to be considered at joint meetings and decisions made on the basis of a common interpretation. Where changes are made to the "rules", they should be agreed by all teams and recorded by the coordinators. The activity is also valuable when you are considering the issues concerned with managing team boundaries.



Santa needs a new sleigh Team briefing sheet

Summary

Last week when Santa was test driving his new sleigh there was an unfortunate accident (see photo above!). Now there is a very real danger that this year Christmas could be cancelled, unless he gets a replacement vehicle ASAP. It is up to you, his Elves to solve this problem and ensure that no children are disappointed on December 25th!!

Team briefing

Your collective goal is to design, build and use a two-wheeled cart with one axle, capable of carrying a weight of 500gms, and which can be pulled by a string rope for a distance of 4 metres. Your trainer will show you the object to be carried.

The design is in two distinct parts: (a) wheels and axle; and (b) the body of the cart. The two construction teams will each be responsible for designing and building one only of these parts. These two teams will be in separate rooms, and may only communicate with each other through Resources Control, who are the third team on the course. The third team is responsible for the co-ordination of the activity and design detail, and for the allocation, monitoring and costing of all materials used.

Resources control team

Your functions are as follows:

1. *To co-ordinate all activity.* In order to do this, you must arrange meetings between the two construction teams. Only one member from each construction team can attend your meetings. Either team can ask for these meetings.
2. *To issue the resources to the construction teams.* Both teams can bid for (i.e. request) specific materials. Each bid must be accompanied by a suitable design. You approve the issue of materials against the design you have "signed off".
3. *To conserve resources.* At the end of the activity you must have saved as much as possible and handed out as little as possible. Your final 20 per cent of materials are your contingency supply, and, whatever happens, you must have at least 5 per cent of the value of the stores left at the end.

Wheelwrights team

You are responsible for designing and then building a two-wheeled single-axle chassis which will carry a 500gms weight when it is transported over the test area indicated to you by the course trainer. The dimensions need to be appropriate to the load. You are responsible for the safe functioning of your final design.

Coach building team

Your task is to design and then build a cart body which will fit on to the axle and safely hold a load of 500 gm when it is transported over the test area indicated to you by the course trainer. The dimensions need to be appropriate to the load. You are responsible for the safe functioning of your final design.

Resources available

The following resources are available from Resources Control, to be shared between both teams. The value indicated is the value of each item as a percentage of the total resources value.

Item value

10 garden sticks, each 300 mm. x 5 mm. diameter 20%

1 stapling machine with 20 staples 20%

10 sheets of card (A4 size), each being about as strong as a birthday card 20%

30 elastic bands 30%

1 x 1 metre length of parcel string 10%

You have 30 minutes to complete the design-and-build stage of the project.

