

# Reversal

## BRIEFING SHEET



You have been supplied with some magnetic components which can be attached to the 'master-board' which you have in your working room. On the master-board is a printed grid, comprising squares laid out in a pattern. This pattern represents a two-dimensional, diagrammatic version of a 3D model that is outside the room.

Your task is to use the magnetic components to complete a full-colour, accurate, design plan of the model. This design plan should be such that it would allow the model to be re-assembled exactly as it is now should it be broken. The plan must be laid out as if the model is being viewed from above.

## THE TASK



You have been supplied with enough magnetic components to complete the task.

You may use the master-board and magnetic components throughout the activity and, in addition, you may use paper and pens in the working room.

## CONSTRAINTS



No paper, pens or other recording materials may be taken out of the working room. Each member of the working team may visit the model once, for a maximum of 1 minute per visit. (This may not be broken down into a series of shorter visits.) Additional visits, up to maximum of 12 visits in total, may be made but no individual may visit the model more than three times. These additional visits may not be taken until every member of the team has made their first visit. Your facilitator will time each visit.

## TIME

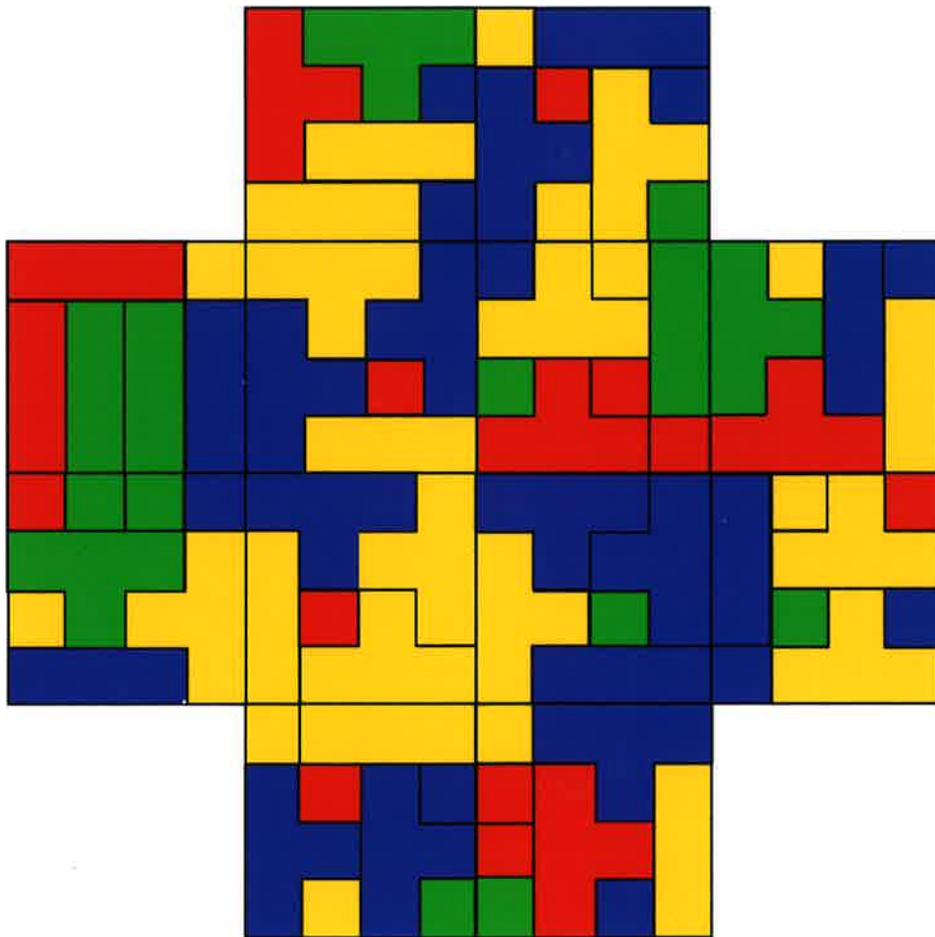


The total time allowed for the activity is 35 minutes.

# Reversal:

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Completed Grid



# Reversal: Facilitator Notes

Team Briefing, Task Allocation, Delegation, Quality Management

## ACTIVITY OVERVIEW



Reversal™ requires a team to make really efficient use of their individual skills and the limited time available to them to solve a problem, that is only viewed by one team member at a time. The exercise requires the team to collect and then use a large volume of visual information to prepare a complex diagram. Some individuals will find the task much easier than others, so identifying ability and confidence is fundamental to building a successful plan.

In order to complete the Reversal task successfully, team members need to:

- Create a plan to solve a problem that is externally referenced using every team member
- Set up a system or process that can cope with uncertainty and error
- Set up and manage an effective communication system that everyone understands and can use efficiently
- Deliver, against very tight time and quality targets, a complete and accurate 2 dimensional representation of the 3D model

At its simplest, Reversal is an excellent introductory team building activity. It quickly shows differences in personal styles, levels of confidence and the ability to support each other within the team. It also requires basic project planning skills. However, the exercise is particularly valuable for use in supervisory skills training or to challenge anyone who needs to allocate workloads, monitor performance, build confidence and capability in team members and keep to time deadlines.

## LEARNING OBJECTIVES



The Reversal exercise has been designed to:

- Develop an understanding of how to use the resources of individual team members in task achievement
- Explore the impact of time pressure and quality standards on individual and team performance
- Identify ways of creating flexible operational plans that can be adapted to cope with change and uncertainty
- Recognise the importance of creating effective communication systems and sharing and analysing information within these systems
- Encourage on-going reflection and review as part of a learning process in complex problem-solving

## ACTIVITY DESCRIPTION



Reversal is a very simple concept that is much more difficult to carry out than it might appear! A complex, 3D model can only be viewed by team members for very limited periods of time within a task time-frame. Every member of a team needs to bring information back from the model in order to recreate a completely accurate 2D plan...easy if you have great visual memory and spatial awareness: more demanding if you are challenged by a set of flat-pack furniture assembly instructions! In order to be successful teams need a shared strategy and good discipline. They need clear and specific instructions about their responsibilities, precise time-management and a shared process for recording information as it arrives.

# Reversal: Facilitator Notes

Team Briefing, Task Allocation, Delegation, Quality Management

## ACTIVITY MATERIALS



The materials supplied will enable you to work with the recommended group size of between 4 and 12 people.

The exercise can work with up to 16 people - adding 4 x extra visits to view the model should make it easier, or the facilitator can choose to still make only 12 x visits to the 3D model available. It might be useful to therefore explore in review what role the people who do not view the model play.

The materials supplied with each set of this activity include:

- 1 x A2 metalised board and carrying case
- 1 x pre-printed A2 Reversal grid
- 1 x A4 laminated Reversal brief
- 1 x Facilitator Manual, including full instructions and review notes
- 1 x A4 Laminated Completed Grid Pattern
- 1 x 3D Model
- 12 x Spare magnetic pieces (not to be used unless as replacement parts)
- 81 x magnetic pieces as shown below:



T-pieces:



Red x 4



Blue x 9



Yellow x 9



Green x 3

2cm squares:



Red x 10



Blue x 10



Yellow x 10



Green x 8

6cm x 2cm rectangles:



Red x 2



Blue x 6



Yellow x 7



Green x 3

Check you have the correct components and make them available to the group.

## ACTIVITY TIMESCALE



An ideal time scale for this activity is given below. However, timings are flexible and may be altered to fit the time-frame that best fits your organisation.

0 - 5 minutes: Introduction to the activity and general description, allocation of materials

5 - 40 minutes: Activity time (based on 12 x people or 12 x visits to view Model)

40 - 60 minutes: Activity review and summary of learning

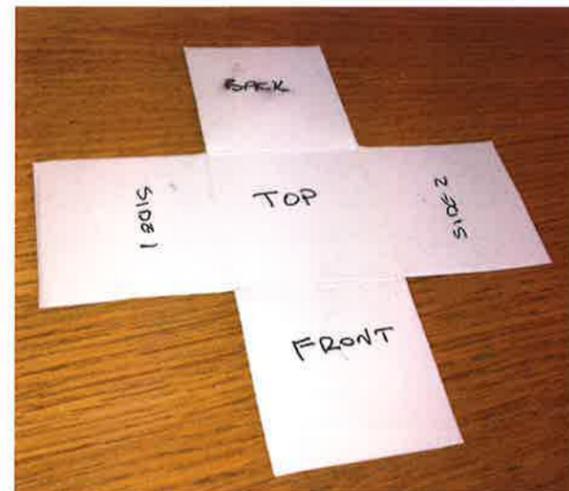
# Reversal: Facilitator Notes

Team Briefing, Task Allocation, Delegation, Quality Management

## SETTING UP THE ACTIVITY



1. The 3D Model should be set-up as per the photographs on Page 5, removing the 3D model from its box, and placing it as shown.
2. You should ensure that the working team has easy access to the Reversal grid: clear tables and chairs as appropriate. Participants may also need paper and pens in the working area to record information as they bring it into the room.
3. The 3D model should be placed immediately outside the room or screened off in another part of the room. The important point here is that it cannot be seen by any of the group unless they make an accompanied viewing visit.
4. At the start of the exercise the group should receive a laminated exercise brief and should be shown the Reversal grid – the design outline upon which they will complete their model plan. They should be issued with the magnetic component pieces and shown how these attach to the board.
5. Some people may not understand the concept of a 3D Model being drawn as a '2D plan'. Consider showing how a cube viewed from the top has 4 x sides which can be 'unfolded' to create a 2D plan as below.



The group may infer the shape of the 3D Model based on the 2D Reversal grid, but do not volunteer or confirm this information, before they view the 3D Model.

# Reversal: Facilitator Notes

Team Briefing, Task Allocation, Delegation, Quality Management

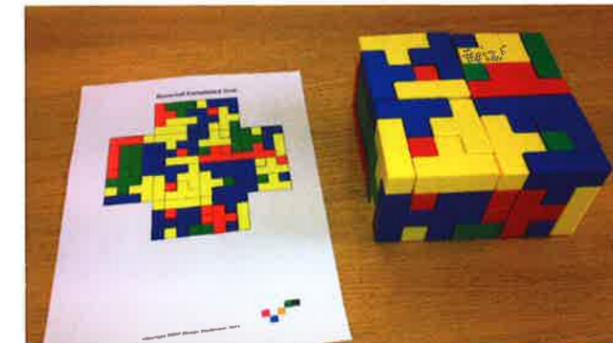
## REVERSAL 3D MODEL ASSEMBLY INSTRUCTIONS



Carefully remove the 3D model from its box as shown below.



Use the picture of the Reversal Completed Grid from the facilitator pack to help to orientate the model.



Ensure the 3D model is on a flat surface and encourage the delegates not to touch it, or change its orientation during the exercise.

This completed 3D model should be placed immediately outside the delegate working room or screened off in another part of the room. The important point here is that it cannot be seen by any of the delegate group unless they make an accompanied viewing visit.

## BRIEFING THE ACTIVITY



1. Refer the participants to their A4 laminated Reversal Brief.
2. Show the teams the Reversal Grid and how the magnetic pieces can adhere to it.
3. Remind them that only one person will be allowed to visit to view the 3D Model at any one time, and tell them where it is located.
4. Explain that you will be recording group visits to ensure that each person views the 3D Model at least once. Suggest they do not move the model.
5. Answer any questions of procedure.
6. Tell them they have a maximum of 35 minutes and start the clock.

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Team Briefing, Task Allocation, Delegation, Quality Management

## DURING THE ACTIVITY



Your role during the task is to monitor and time the viewing visits as and when the group members choose to take them. You should time these visits strictly – a maximum of 60 seconds per visit. You should also note who visits the model and ensure that there are no 'second visits' until everyone in the group has visited once. Ensure that there are not more than 12 visits in total.



(The brief for this exercise says 12 visits which is a very challenging target. If you think that this may cause problems for your group - or if you want to ensure the best chance of success, for example to build a team leader's confidence - you may wish to extend this to 16 visits. Use your discretion).

Ensure that there is no communication between people in the room and those viewing the model and that the viewers do not record any information whilst viewing the model.



At the end of 35 minutes call time.

Bring the model into the room and compare the grid with the model. If there are obvious errors, explore how they happened. When everyone is satisfied with the accuracy (or otherwise) of the grid, move into the review process.

# Reversal: Facilitator Notes

Team Briefing, Task Allocation, Delegation, Quality Management

## REVIEWING THE ACTIVITY



The exercise review centres around questions relating to the principles of effective information management, effective use of time and personnel, good planning and briefing and support for individuals. You are seeking to find out if your teams....

1. Established a clear and common understanding of the goal and the process involved.
2. Identified the information management problems they faced and created a clear and shared strategy for overcoming them.
3. Organised a clear system for collecting and retaining the information they needed.
4. Delegated appropriate responsibilities, according to individual skills.
5. Modified their planning if 'better processes' were identified.
6. Used their available time effectively.
7. Briefed individuals clearly and correctly so that everyone knew precisely what their responsibilities were.
8. Dealt effectively with errors and mis-information.
9. Supported individuals who lacked confidence in their own ability or were unsure of their information.
10. Allowed time for final checking and confirmation of their solution.

## SUGGESTED REVIEW FORMAT



Break into 3 small groups: (2 or 3 people, depending upon total group size.) Display the three initial review questions and ask each group to tackle a different question. Allow 5-10 minutes then ask for a report back.

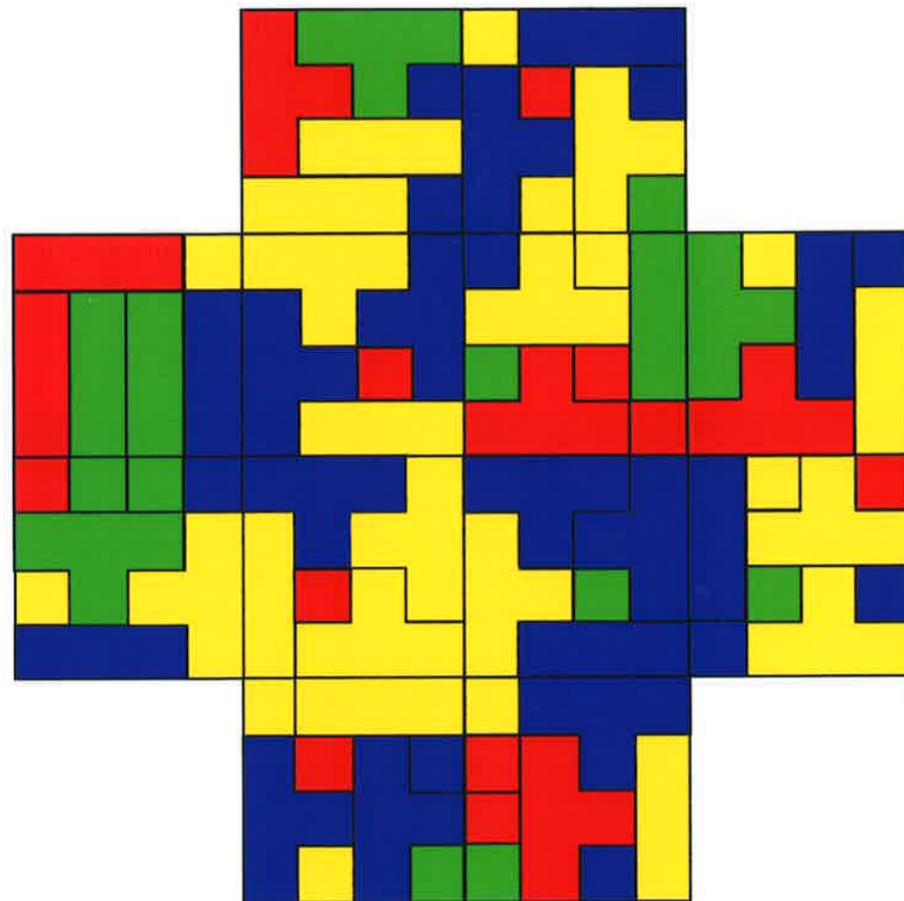
- Q1. Think about the process for achieving this task. How effective was the planning, re-planning, implementation and problem-solving? With hindsight, what could have been done differently to improve the efficiency of the process?
- Q2. What did you notice about individual styles and skills during the exercise? What specific behaviours were particularly helpful, both in achieving the task and supporting the team? Is there anything which individuals could have done differently to improve team effectiveness?
- Q3. This exercise is specifically about handling complex information within a team. What lessons can you draw about how information and knowledge is gathered and transferred between team members? How can you ensure that important information is understood correctly and that you avoid errors and mis-understandings?

Gather the key learning points from each team and summarise them, checking that your interpretation is correct. (Approx. 10 minutes). Reveal Q4. Ask each individual to think for 5 minutes about the question and then gather the individual responses.

- Q4. Think about your own workplace. What might you, personally, be able to contribute to positive improvements in the way information is collected, sorted, stored, transmitted and shared?

# Reversal:

Completed Grid



# Reversal

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