# CREATIVE THINKING & PROBLEM SOLVING



# Define/Elaborate on the meaning of problem-solving and decision making.

**Problem Solving:** is a mental process tat involved problem finding, which is the ability to identify the problem.

**Decision Making**: Aimed at finding a solution to a problem by choosing the best solution or course of action.

# **Explain/Differentiate/Distinguish between problem-solving and decision making.**

PROBLEM SOLVING	DECISION MAKING
Problems can be solved by a group or an	Decision making is often done by senior
individual team member. This makes problem	management this makes decision making
solving more inclusive.	more authoritative.
Alternative solutions are generated and	Various alternatives are considered before
critically evaluated.	deciding on the best one.

## Identify/Name/Outline/Explain/Discuss the problem solving steps. (only 5 given, 8 in total)

#### Identify the problem

Acknowledge that there is a problem.

#### Define the problem

Define all the possible causes of the problem.

## Identify possible solutions to the problem.

Identify all different possible solutions.

#### **Evaluate alternative solutions**

Consider advantages and disadvantages of each alternative solution.

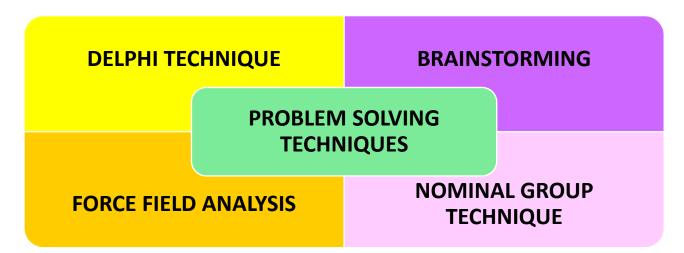
#### Develop an action plan

Arrange the necessary resources and delegate tasks

Apply the problem-solving steps from given scenarios/case studies.

Identify/Name the following problem-solving techniques from given scenarios/statements: Delphi technique, force field analysis, brainstorming, nominal group technique.

## PROBLEM SOLVING TECHNIQUES



#### **DELPHI TECHNIQUE**

#### Ways in which a business can apply the Delph Technique (4)

- Businesses must invite a panel of experts to research the complaints from customers.
- Experts do not have to be in one place and will be contacted individually.
- Request the panel to individually respond to the questionnaire/suggest improvements to the products and return it to the business
- Summarise the responses from the experts in a feedback report.

## <u>Impact of the Delphi Technique</u> (4)

#### **Advantages / Positives**

- Information received from experts can be used to solve complex business problems.
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- Conflict may be avoided especially if all experts are knowledgeable and well qualified.

- It is an expensive technique to use because of its high administrative costs.
- It may be time-consuming and complicated to analyse data received from experts.
- Not all experts are willing or interested to give feedback or to complete questionnaires.



#### **FORCE FIELD ANALYSIS**

# Ways in which a business can apply the Force Field Analysis (4)

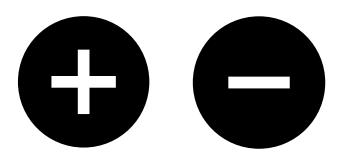
- Describe the current situation/problem and the desired situation.
- List all driving/pros and restraining/cons forces that will support and resist change.
- Allocate a score to each force using a numerical scale, where 1 is weak and 5 is strong.
- Weigh up the positives and negatives then decide if the project is viable.
- Choose the force with the highest score as the solution.

## **Impact of the Force Field Analysis** (4)

## Advantages / Positives

- It provides a visual summary of all the factors supporting and opposing a particular idea.
- Employees feel included and understood.

- It is time-consuming since the business must stabilise before more/further changes can be made.
- · Requires the participation of all business units



## **BRAINSTORMING**

# Ways in which a business can apply Brainstorming (4)

- Define the business problem clearly, so that all participants/stakeholders understand the problem.
- Set a time limit for each brainstorming session.
- Use each suggestion, to inspire new thoughts/ideas.
- Do not judge/criticise the ideas, so that many ideas could be generated as quickly as possible.
- All members of the group randomly make suggestions.

# **Impact of Brainstorming** (4)

# **Advantages / Positives**

- People get ideas from others and build on them.
- Stimulates creative thinking in the workplace.

- Some team members may dominate discussion.
- Fear of criticism may prevent full participation in brainstorming sessions.



## NOMINAL GROUP TECHNIQUE

# Ways in which a business can apply the Nominal Group Technique (4)

- Encourage group to clearly define the problem/to improve the quality of their products due to various complaints so that all the small groups can work on the same problem.
- The business must divide the employees into smaller groups.
- Appoint one employee to write the ideas/solutions on a large sheet of paper/ capture solutions electronically on computer for all to see.
- Allow each employee to give a second solution until all possible solutions have been recorded.
- Encourage employees to ask clarity seeking questions.
- Discourage criticism of ideas/solutions as this may prevent others from giving their solutions.
- The business must eliminate ideas that are duplicated/ similar.
- Collect the ratings and calculate total points.

## <u>Impact of the Nominal Group Technique</u> (4)

#### **Advantages / Positives**

- It provides time to think about the question in silence before responding.
- Voting on the ideas is anonymous and may be more reliable/honest.

- It minimises discussion and thus does not allow the full development of ideas.
- Small groups limit participation and are pre-selected.
- It is time-consuming, as each member must make a presentation.



#### **CREATIVE THINKING**

Creative thinking is the ability to think of original and innovative ideas.

# Explain/Recommend ways businesses can create an environment that promotes creative thinking in the workplace.

- Encourage alternative ways of doing things.
- Respond enthusiastically to all ideas and never let anyone feel less important.
- Train staff members in innovative techniques like mind mapping.
- Place suggestion boxes around the workplace and keep communication channels open for new ideas.

## Advantages of creative thinking in the workplace.

- Better, unique and unconventional ideas and solutions are generated.
- Complex business problems may be solved.
- Improves motivation amongst staff members.
- Creativity may lead to new inventions which improve the general standard of living.

