

Table of Contents

General Introduction	6
Definition of a Problem and a Challenge	7
General Introduction to the Student	8

GETTING-SET

Introduction	10
Instructions for the Teacher	
1 A Teabag is a Teabag is a Teabag	12
2 What Do You See?	13
3 Ping Pong Plenty	14
Exercises for the Student	
Activities #1 to #3	15-17

MESS-FINDING: Awareness of Problems/Challenges

Introduction	18
Instructions for the Teacher	
1 Creative Challenge Hotchpotch	19
2 Challenges for the 21st Century	19
3 Personal Inventory Exercise	21
4 School News	22
5 Textbook Improvement	22
Exercises for the Student	
Activities #1 to #5	23-29

DATA-FINDING

Introduction	30
Instructions for the Teacher	
1 Computer Dating	31
2 Boredom in School	31
3 College Search	32
4 Recycled School	33
5 Boycott Blues	33
6 The Perilous Porch	33
Exercises for the Student	
Activities #1 to #6	35-43

PROBLEM-FINDING

Introduction	44
Instructions for the Teacher	
1 To Get a Belt or be Belted	45
2 The Mad Hatter	45
3 Family Friction	46
4 Dealer's Choice	46
Exercises for the Student	
Activities #1 to #4	47-51

IDEA-FINDING

Introduction	52
Instructions for the Teacher	
1 Laughter Unlimited	54
2 Sock Matching	54
3 The Chocolate Bunny Caper	54
4 Five Grand	54
5 Dealer's Choice Continued	56
Exercises for the Student	
Activities #1 to #5	57-61

SOLUTION-FINDING

Introduction	62
Instructions for the Teacher	
1 In Search of a Perfect Pen	65
2 Doomsday Plus 10 and Counting	65
3 Sifting and Sorting the Solutions	65
4 Hot Air Ballooning	66
Exercises for the Student	
Activities #1 to #4	67-73

ACCEPTANCE-FINDING

Introduction	74
Instructions for the Teacher	
1 Contention in the Cafeteria	75
2 Contention in the Cafeteria Part II	75
3 Contention in the Cafeteria Part III	75
Exercises for the Student	
Activities #1 to #3	76-81

GETTING YOUR ACT TOGETHER

Instructions for the Teacher	
1 Graffiti Centre	82
Exercises for the Student	
Activity #1	83

CREATIVE PROBLEM SOLVING

Three Main Components & Six Specific Stages	84
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Introduction to Getting-Set

- 10 Brainstorming is a technique which is used to stimulate a lot of ideas in a short period of time. Brainstorming is used in each of the six steps of Creative Problem Solving. How it applies to each step varies. This first chapter introduces brainstorming as a technique separate from the total CPS process in order to give students a chance to get comfortable with the technique apart from the whole problem-solving experience.

In brainstorming an effort is made to go for quantity. One reason for this is that expressing a lot of ideas results in getting out all the usual responses as well as the habitual responses. The ideas that have been already tried are aired and part of what happens in brainstorming is a kind of purge. After that, the more unusual, the more imaginative and creative ideas have a chance to surface.

In brainstorming it is important to avoid critical comments about the ideas that are offered. This is not always easy for teenagers. These initial practice sessions are included to develop the right atmosphere for successful Creative Problem Solving. As often as not, the teenager holds back in offering an idea because of self criticism. Use these exercises to get ideas flowing freely.

Once the students have caught on to the open-ended nature of brainstorming, they come up with some amazing contributions. The actual generating of ideas is often accompanied by general high spirited participation. Speaking one at a time, or waiting to be called on, is often not practical and can inhibit the flow of ideas. The leader of the session will need to hit a balance between a very structured situation where the students are quiet and non-participative and the other extreme where the students are so caught up with the activity and are all speaking so quickly that the ideas are getting lost. Some strategies that have worked to catch the ideas include a tape recorder to supplement what is being written on the papers or more than one person to write down the ideas as they come. Using large pages of butcher paper has been the best way to save student work.

GETTING SET

In brainstorming, hitchhiking on someone else's ideas is encouraged. Hearing an idea often triggers a slightly different thought in another participant. Combining, building on, re-arranging or improving an idea is hoped for and encouraged.

11

As brainstorming progresses, there are periods when ideas lag. Sometimes there is a need to stimulate further ideas. A question can spur new ideas. As well, asking the students to think of substitutions, adaptations or ways to combine or re-arrange some element in the situation can start another stream of ideas. The simple technique of magnifying some component or of minifying some aspect can call forth new ideas.

This introductory chapter will also provide some practice in converging. Suggestions will be given for introducing the use of criteria to make selections among the ideas given.

Thus, at the end of chapter one, students will have gained some proficiency in two basic skills for Creative Problem Solving: diverging and converging. As well, the students will have begun to put into practice the ground rules for CPS and will be ready to begin to apply these principles to the six steps of Creative Problem Solving.

GETTING SET

BEFORE YOU START: Make photocopies of the Getting-Set Activities #1 to 3 (pages 15 - 17) for each student. Distribute the activity sheets singly, as you become ready to use them.

12 Activity #1

A Teabag is a Teabag is a Teabag

Suggestions for the Teacher:

If your class has not had much experience with brainstorming, practising on a topic which isn't part of a problem can be helpful. Students will need practice in holding back negative responses.

Some people like to chart their progress in "fluency" (that is, how many ideas they can generate in a given period of time).

Activity # 1 works best when the objects are in front of the student. Five or six teabags divided among small groups works well. Allow the students to pass the teabag around and then put it where the group can continue to look at it.

The following list can be used for further practise, after Activity #1 is completed.

Alternative uses for:

- rubber bands
- computer paper strips with holes
- bottle caps
- staple removers
- the round circles that come out of a hole punch
- old nylon stockings

After the students have completed the list or after you have had general group response, use the exercise to practise using criteria to select among the items listed. For example, say "If your criterion were to be the most marketable idea among teenagers, which of these alternative uses would you choose? If your criterion is the most unusual, which would you choose? If you were to choose the alternative use which would be closest to art which ones would you choose?" As you do this make note of the fact that your means of evaluation makes a difference in your choice.

GETTING SET