

# MODULE 5: **CREATIVE PROBLEM SOLVING + DECISION MAKING**

**PARTICIPANT WORKBOOK**  
LIFE SKILLS PROGRAMME



**nyda**

NATIONAL YOUTH DEVELOPMENT AGENCY  
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Creativity can solve almost any problem.

George Lois

## Module outcomes

By the end of this session, you will:


- Identify key questions to ask in solving problems
- Understand the six-step problem-solving model
- Identify and use different problem-solving tools
- Be able to use brainstorming tools to generate ideas for solutions
- Know how to use the Six Hats technique when making decisions
- Know how to evaluate potential solutions against criteria
- Understand how to identify methods necessary to implement solutions
- Be able to evaluate and adapt a chosen solution

## 1. Introduction

We all need to make decisions and solve problems daily. Some people seem to go through life much easier than others – which probably means that they have the right knowledge and problem-solving skills. If you ask them how they do it, there is a good chance that many of them will give you the same answer: you must know what the problem is and then you have to follow certain steps to get to a solution that can work. In this module, we will focus on a basic process that uses creative methods to make decisions and solve problems successfully. If you go through this process regularly, you will feel much more in control of your own life and the decisions you have to make!

## 2. What is a problem?

### ACTIVITY 1

**Task**

**What comes to mind when you hear the word “problem”? Write down a short definition of the word.**

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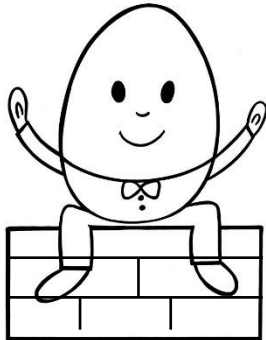
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A problem can be defined as a situation where what is happening currently, does not match what is desired. We can also call a problem a challenge or opportunity, or any situation where there is room for improvement. Each problem needs a solution – otherwise it will remain a problem! In order to get to a solution, you need to follow a structured approach or plan to implement a solution to get to the desired situation. Take the following example:

Humpty Dumpty  
sat on a wall -  
Humpty Dumpty  
had a great fall -  
All the king's horses  
and all the king's men  
Couldn't put Humpty together again.



## ACTIVITY 2

### Small Group



Think about the following questions and give feedback to the group:

1. What is the problem here?
2. How would you solve Humpty Dumpty's problem?
3. Give an example of a difficult challenge that you managed to resolve.

### 3. Six-step problem-solving model

Solving a problem does not have to be problematic! If you do it in a planned and structured way, it can be quite straight forward – OK, not necessarily easy, but if you have a structure that guides you, it is at least much easier. Roger Kaufman has given us a step-by-step recipe to tackle problem situations:



### Key Learning

#### Kaufman's six-step problem-solving model

1. **Define the problem or need:** What is the gap between the current situation and desired state?
2. **Determine solution requirements and identify solution alternatives:** List all requirements for a good solution. Identify alternative ways of meeting these requirements.
3. **Pick the best solution:** Choose most effective and efficient means of meeting the solution requirements and achieving the goal.
4. **Implement** the chosen solution.
5. **Determine effectiveness:** How well or how poorly have requirements been met?
6. **Assess** the final outcome and **review** as required.

#### 3.1 What is the problem?

Think about a car that is not driving, or a child that is crying: If you don't know what is wrong with the car or why the child is crying, you cannot assist to make things better. If you don't know what the problem is, you cannot solve it! One way to figure out what the problem is, is

to ask other people who may be involved in the situation. Using questions that start with *Who? When? What? Why? Which? How? and Where?* will provide you with a lot of information about the problem.

Another way to get more clarity on the problem, is to define the present state of the situation and the desired state. Be as specific as possible with the information so that you can measure the success of the solution that you are going to implement.

### ACTIVITY 3

## Task



**Identify any career-related problem or important decision that you have to make (e.g. you struggle to find a job / you don't do well in job interviews / you don't know how to compile a winning CV / you don't get along with your manager. Alice will give you her example to help you a bit).**

1. Define the real problem (**Alice's problem:** *"I hate my job!"*):

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2. Ask yourself questions and provide answers to them:

Q: Who.....?

A: .....

Q: When.....?

A: .....

Q: What.....?

A: .....

Q: Why.....?

A: .....

Q: Which .....

A: .....

Q: How.....?

A: .....

Q: Where.....?

A: .....

**Alice asks:** *Who makes things difficult for me at work? When do I feel more unhappy? What are the things that I don't like doing? Why do I feel unhappy? Which tasks are a bit better than others? How do I know that I hate my job?*

*Where do I experience the most stress?*

3. What is the present state?

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**Alice:** *I don't want to get up in the mornings to go to work. I feel stressed all the time. I don't know how to perform my tasks. No one wants to help me. My manager is a pain. The transport to work eats most of my salary.*

4. What is the desired state?

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**Alice:** *I want to look forward to going to my job. I want to feel relaxed so that I can perform to the best of my abilities. I want to get along with others to ask them for help. I want to be able to be assertive towards my manager. I want to start saving money for my own car.*

### 3.2 What are my options?

Next, you want to know what the solution requirements and alternatives are in the process of solving the problem. First you must list all requirements for a good solution, and it must consider all the different aspects involved in the problem. *For example:* the solution must be cost-effective / it must not have a negative impact on any other person / it must not go against my values and integrity / it must be a sustainable solution.

Now you have to generate alternative solutions and ways to meet these requirements. **Brainstorming** is a very useful tool in generating alternatives. The idea is to first create multiple ideas and then to evaluate them later. This is where creativity comes in – you need to think as freely as possible. The following rules apply to brainstorming:



#### Rules for brainstorming

1. No criticism, evaluation, judgment, or defence of ideas during the creative session
2. No limit on 'wild' ideas, no matter how outrageous or impractical they seem
3. Every idea is to be expressed
4. Quantity is more desired than quality
5. 'Piggybacking' (building on ideas) is encouraged

To get your creative juices flowing, it is always good to start with a basic exercise, where you apply all the rules mentioned above.

#### ACTIVITY 4

### Task



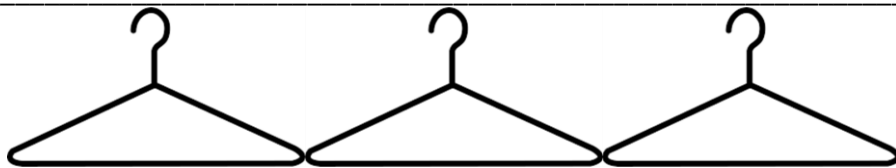
What can you do with a wire coat hanger? Write down as many ideas as possible in 2 minutes:

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#### ACTIVITY 5

### Task



Brainstorm possible solutions for your career-related problem. (During a brainstorm session, Alice came up with the following ideas:

look for a new job / ask for a transfer / move to a new department / build better relationships at work / do a course for professional development

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Creative and critical thinking are both important aspects of problem solving. The “**Six Hats**” technique developed by Edward De Bono described below also provides a powerful technique for looking at decision making from different viewpoints.


- **White Hat:** focuses on data, facts, information. What do we know? What does this tell us? (e.g. *How many days has Alice missed work in the last month; What support does Alice get from HR?*)

- **Black Hat:** focuses on difficulties, potential problems, why something may not work. (e.g. *What issues contribute to Alice hating her job? What are obstacles to improvement?*)
- **Red Hat:** focuses on feelings, gut instinct, and intuition. (e.g. *How does Alice feel about the current situation?*)
- **Yellow Hat:** focuses on values and benefits: why something may work. (e.g. *What is working well for Alice in the office?*)
- **Green Hat:** focuses on creativity: possibilities, alternatives, solutions, new ideas. (e.g. *What are the things that Alice can change?*)
- **Blue Hat:** focuses on process, timing, next steps, action plans. (e.g. *What's the next logical step? Who needs to be included?*)

### 3.3 What is the best solution?

The next step is to figure out which solution that was generated during brainstorming, will be the best one (at least for now, until we evaluate it later). For each potential solution, you must weigh the potential advantages and disadvantages. Ask yourself: how does this solution align with my priorities and values? What is the risk involved with this solution? How practical is this solution? What are the potential consequences of the different options? Every decision has four kinds of outcomes: (1) **Positive** consequences (gains) for **you**; (2) **Negative** consequences (losses) for **you**; (3) **Positive** consequences (gains) for **others**; and (4) **Negative** consequences (losses) for **others**. The **outcomes window** is a handy tool to help you look at decisions from different angles.

#### ACTIVITY 6



## Task

**Take ONE of the alternatives that you have generated in the previous exercise and complete an outcomes window for that option, e.g. Alice deciding to find a new job.**

	Positive	Negative
For me	e.g. I can work in an environment that is more stimulating / I will be happier	e.g. I will have to start working my way up again in the company
	e.g. I will be a nicer person at home	e.g. I may have to work longer hours and won't be able to help with chores at home

Once you have done this, review your completed window by asking yourself the following:

1. Are certain parts of the window emptier than others? (Look for a possible reason).

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2. Which was easier - filling in the positives or the negatives?

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3. Who were the 'others'?

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4. Which outcomes are more important. Yours, or other people's?

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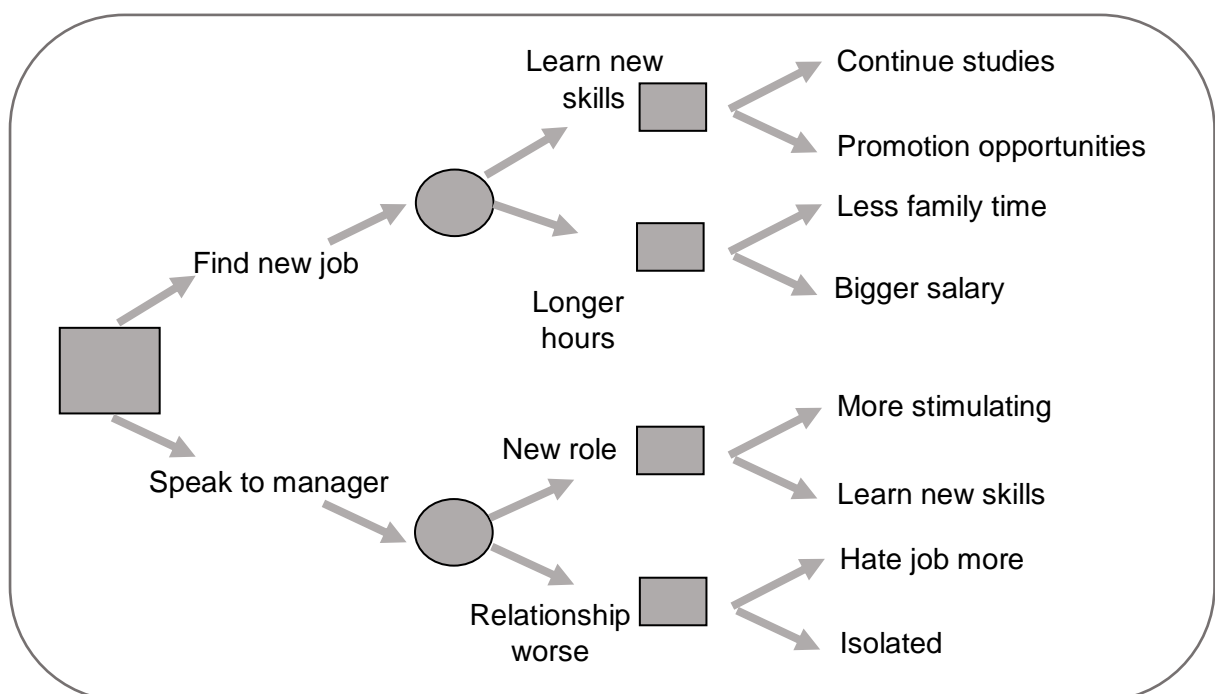
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5. It is also possible to ask the 'others' to help you to identify the pros and cons to the window. See what difference it makes.

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**Decision trees** is another tool that can help you to consider the possible implications that certain choices might have in future. It highlights various decision points as well as chance events that might occur as a result of these decisions. Below is an example of Alice's decision tree. Remember, she hates her job and she came up with alternative solutions to her problem.



### 3.4 How do I implement the solution?

Once you have selected a solution, you need to implement it. You need to think creatively about the steps, tasks, and tools for making the solution become reality. **Brainstorming** is also very useful here. Identify **tasks** that are critical to the timing of the solution implementation. Also think about the **resources** for making the solution become real. Examples of resources are: people that will complete each identified task; any special equipment required to implement the task; money to fund the solution; and any additional information required to implement the solution. How will these resources be obtained?

#### ACTIVITY 7

## Task



Complete the following relating to **YOUR** specific career-related problem. You will also see Alice's brainstorm results in the table below.

Which <b>steps</b> do you need to follow to implement the solution?	Which <b>tasks</b> are involved in each step?	Which <b>resources</b> are required to implement each task?
1. Research available jobs	1. Read newspaper 2. Search LinkedIn	<ul style="list-style-type: none"><li>• Buy Sunday Times</li><li>• Computer &amp; data</li></ul>
2. Evaluate fit to jobs	1. Analyse job ads 2. Analyse own skills	<ul style="list-style-type: none"><li>• NYDA World of Work</li><li>• Career counsellor</li></ul>
3. Apply for jobs	1. Get application forms 2. Study required docs 3. Ask for reference letters	<ul style="list-style-type: none"><li>• Update CV</li><li>• Application form</li><li>• ID</li></ul>

### 3.5 Was the problem solved?

Now you must evaluate whether your solution was effective. Did you moved from the original problem state to the desired problem-solved state?

#### ACTIVITY 8

##### Small Group



**You can only complete this exercise once you have implemented your solution. In the meantime, look at Alice's evaluation. How effective do you think her solution was? Discuss with the group.**

What was Alice's original problem state?

*I don't want to get up in the mornings to go to work. I feel stressed all the time. I don't know how to perform my tasks. No one wants to help me. My manager is a pain. The transport to work eats most of my salary. Actually, I hate my job!*

What is Alice's current problem-solved state?

*It was quite stressful to go for all the job interviews. I thought I would never get another job. Although I still feel a bit unsure about how everything works, the people who work with me are very willing to teach me. For now, my salary is almost the same, but at least I can walk to work and don't have to spend most of my money on transport.*

How effective was Alice's solution? Why do you say so?

### 3.6 Celebrate and revise

After the problem has been solved, take the time to celebrate the things that went well. Try to give recognition to each person who helped and supported you in the process. Also take some time to think about the lessons that you have learnt during the process so that things go even smoother next time you have to solve a problem. During any job interview, you can expect the following question: "Can you give us an example of how you make decisions or solve problems?". Remember, employers are looking for creative problem-solvers and decision-makers. If your answer can demonstrate that you have a clear and creative strategy that leads to positive results, you will be a very attractive candidate!

#### 4. My Action Plan

##### Personal Reflection



**Please take a moment to reflect on the value of this life skills module that you have completed now. Also think how you are going to apply what you have learnt to develop yourself as best as you can.**

1. What was interesting and new to you in this module?

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2. What was the most valuable insight that you had today?

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3. How can you use what you discovered today?

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4. What will you do differently from now on as a result of what you learned today?

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5. What is the first step you will take?

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6. What are some of the obstacles you may encounter?

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7. What will be the best way to deal with them?

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8. How will you know that you have successfully applied your new knowledge and skills?

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**GOOD LUCK WITH THIS!**

## 5. Recommended resources

Ceserani, J. (n.d.). Creative problem solving. Taking imagination through to action. Online resource, available at <https://bookboon.com/en/creative-problem-solving-ebook>

Creative Education Foundation. (2014). Creative problem solving resource guide. Available at <http://www.creativeeducationfoundation.org/wp-content/uploads/2015/06/CPS-Guide-6-3-web.pdf>

Freeth, P. (n.d.). A practical guide to creative problem solving. Online resource, available at <https://bookboon.com/en/a-practical-guide-to-creative-problem-ebook>

MindTools. (n.d.). Brainstorming. Generating many radical, creative ideas. Online resource, available at <https://www.mindtools.com/brainstm.html>

MindTools. (n.d.). Six thinking hats. Looking at a decision from all points of view. Online resource, available at [https://www.mindtools.com/pages/article/newTED\\_07.htm](https://www.mindtools.com/pages/article/newTED_07.htm).

Skills You Need. (n.d.). Decision making. Online resource, available at <https://www.skillsyouneed.com/ips/decision-making.html>

Smith, S. (2016). Creative problem solving. YouTube video, available at <https://www.youtube.com/watch?v=QbxyiUG5RRI>



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## Did you know?

We have many more modules that were specifically designed to help you develop those skills that are essential to function effectively in life and in the workplace. Ask your facilitator about the following modules:

1. Who am I?
2. Building my brand
3. Managing time
4. Be more resilient
5. Creative problem solving and decision making
6. Building interpersonal relationships
7. Effective communication
8. Dealing with conflict
9. Understanding the world of work
10. Personal development plan

For e-Learning and other resources, visit  
[www.nyda.gov.za](http://www.nyda.gov.za)

You cannot teach a man anything.  
You can only help him discover it  
within himself.

Galileo

