

Module 6: Problem solving

Student resource

Introduction

In business, a problem is a situation that creates a gap between the desired and actual outcomes. Problems present themselves in the workplace as well as in everyday life and the ability to solve and prevent them, is a key skill that employers look for in applicants and employees.

Problem-solving skills help you determine why an issue is happening and how to resolve those issues. The problem-solving process often starts with identifying the issue, coming up with solutions, implementing solutions and evaluating their effectiveness. Solving problems also requires other transferable skills such as; teamworking, effective communication, adaptability, effective negotiation and creativity. When working as a team to solve problems, it is important to understand which strengths individuals in your team can bring. If you completed Module 4 (Teamwork) as part of your wider experience, you will have learnt more about effective teamworking.

Opportunities often emerge from challenges and problems. Everyone faces problems, you, me and even large multi-national companies. However, when businesses face problems they can be very costly. Many of the world’s most successful companies such as Amazon, Ford, Fed Ex and Apple were founded on solving a problem.

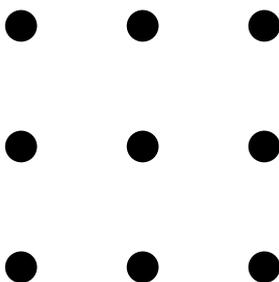
In completing this module you will:

- Develop awareness of the skills required for effective problem-solving
- Explore and gain experience in using problem-solving strategies
- Develop skills to effectively engage with your workplace challenge
- Identify opportunities to develop problem-solving skills in your school / college life

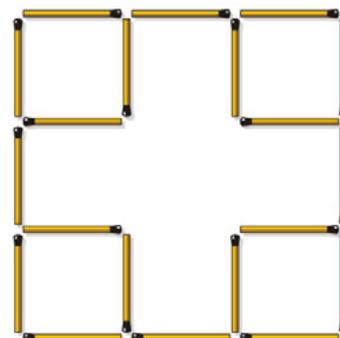
Activity 1 (10 mins)

This activity is designed to get your brain straight into problem-solving before looking into the characteristics that enable us to solve different problems.

Can you join the 9 dots with 4 straight continuous lines, never lifting the pen from the paper?



Without overlapping the matches or breaking them, move 2 matches to make 7 squares. The squares can be any size.



Activity 2 (15 mins)

There is a lot of research about the function of different parts of the brain and although there is much that is not fully understood, generally the left-hand side of the brain considers logical issues and the right-hand side is more creative. Highlight the top 10 characteristics you feel are most important when problem-solving on the graphic below.

Left brain

- Pattern perception
- Detail oriented
- Reality-based
- Sequential
- Analytical
- Practical
- Cautious
- Rational
- Planned
- Stability
- Orderly
- Control
- Logical

Right brain

- Emotional intelligence
- Social intelligence
- Holistic thinking
- Compassion
- Imagination
- Judgement
- Perception
- Risk taking
- Reasoning
- Creativity
- Synthesis
- Empathy
- Intuition

Using your top 10 characteristics above, which side of your brain do you feel is dominant (stronger), left or right?

Left

Right

You may wish to try this quick [quiz](#) from MentalUP, to identify whether your right or left side is more dominant and compare your answers from the graphic above.

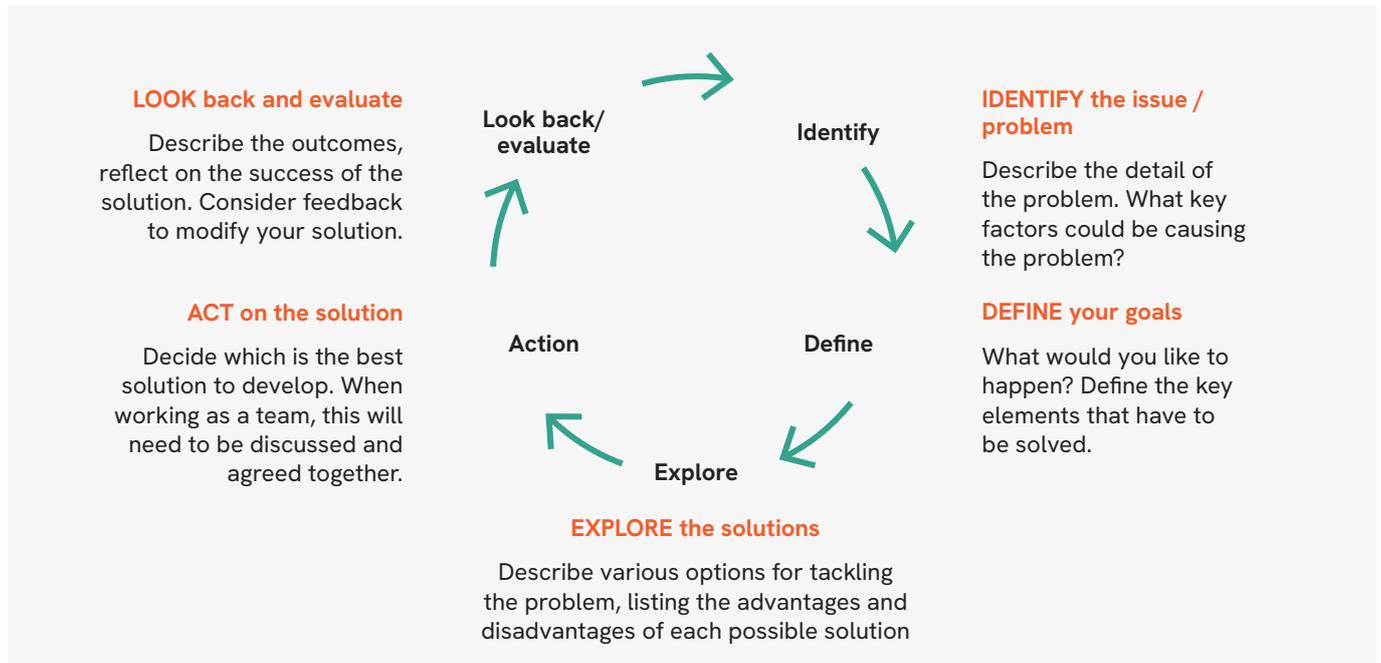
When working as a team, why might it be important to have a range of characteristics to solve problems more effectively?

Use this space to write your answer

If you are working as a team to complete your workplace challenge (Module 8), you may wish to discuss each other's strengths to better understand the capabilities of your team.

Activity 3 (45-60 minutes)

There are a number of processes businesses can use to solve problems for example, sprints, design thinking and many others. The IDEAL problem-solving process (Bransford & Stein 1984), can also be used as a tool to work through problems. The short [video](#) (⌚ 2 minutes watch) from Institute of Chartered Accountants (England & Wales) ICAEW may help illustrate the method below.



Using the IDEAL process, come up with a solution to the scenario problem and save your local library! The [video from Ms Spensieri](#) (⌚ 8 minutes watch) talking about the IDEAL problem-solving method may help you understand the process in more depth.

Scenario

The number of young people accessing the local library and using the resources is very low compared to other age groups. In order to meet targets for the library which is at risk of closure, a solution to engage more young people must be found.

If you are completing a workplace challenge (Module 8), you may wish to use the IDEAL method for problem solving. If you are working with an employer they may provide you with an alternative process for problem-solving, however completing the task above will give you an opportunity to practice your problem-solving techniques.

The look back & evaluate stage would take place after your solution has been tested, you will not be able to complete this section

Identity

Define

Explore

Action

Activity 4 (10 minutes)

Watch the [How to improve your problem-solving skills](#) video from Success at School (⌚ 2 minutes watch) and consider opportunities you have in school / college to demonstrate and develop your own problem-solving skills. Use the space below to record your reflections.

Opportunities to demonstrate problem-solving skills at school / college

e.g. Conducting research from various sources to build a picture and understand historical events in history lessons.

Use this space to write your answer