



Problem Solving: Participant Playbook

This participant playbook is part of a series created for the course “Game Changers: Gaming Skills and the Workplace.” Built in a modular fashion to allow for maximum flexibility, this course provides training on real-world skills that can be developed and practiced in a game-based environment. Using a combination of facilitated lessons, activities, research, and games, this course will help teach a new generation of job seekers the 21st Century soft skills critical to Canadian employers. Modules in this course include:



A Youth Advisory Committee played a key role in the development of this course. Literacy Link South Central offers thanks to committee members Cassandra Smith, Colin Todkill, Eleyas Araya, Eric Rice, Jamie Kaill and Taisha Jene Pinsonneault for their input and guidance.

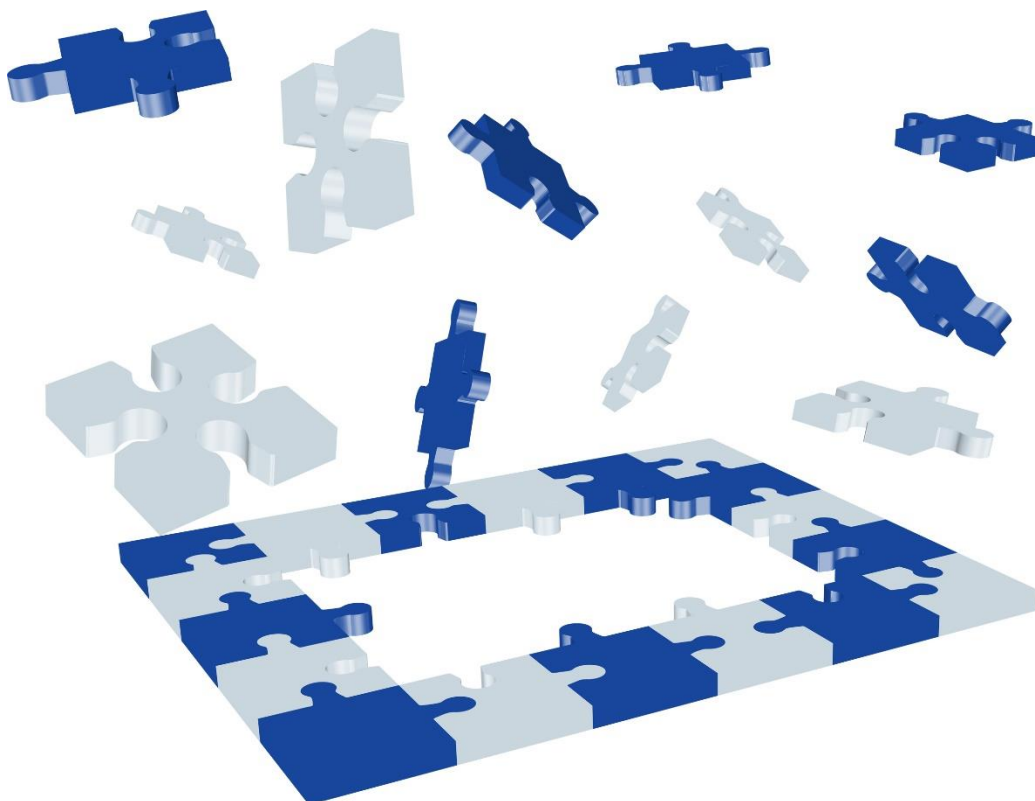
Gaming recommendations for this project were provided by our advisors at Teleos Engagement. Literacy Link South Central recognizes Gabriel Hancock, Robert Durant and Shayne Ganness and thanks them for sharing their in-depth knowledge of game design and development.

This curriculum was developed and formatted by Summer Burton, Project Manager, Literacy Link South Central. For questions about this curriculum, please contact Literacy Link South Central at 519-681-7307 or literacylink@llsc.on.ca

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Agenda:

1. Approaching Life's Problems
2. Brainstorm a Solution to a Complex Problem
3. Problem Solving Questions
4. Skills for Problem Solving
5. Dr. Johnson's Lab / Zombie Apocalypse
6. Selecting the next session's topic
7. Wrap-up and take-away

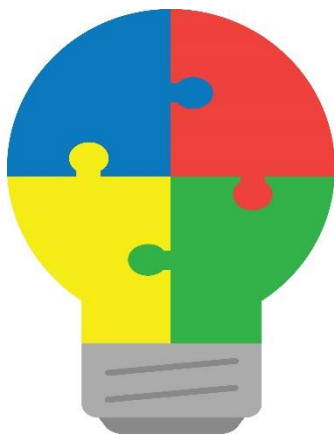


Approaching Life's Problems

Have you ever encountered a problem that could only be solved by thinking creatively?

Yes No

Problem solving involves a combination of several different actions or activities, including:



- _____ that there's a problem in the first place
- _____ about possible solutions
- Making a _____ about what you're going to do to try and solve the problem
- And then _____ on it.

Do you know someone who complains about problems, but doesn't try to fix them?

Yes No

How does that make you feel? _____

We may not be able to solve every problem, but we can't fix things if we don't at least try.

Brainstorm a Solution to a Complex Problem

As a group, choose one of the complex problems from the list below:

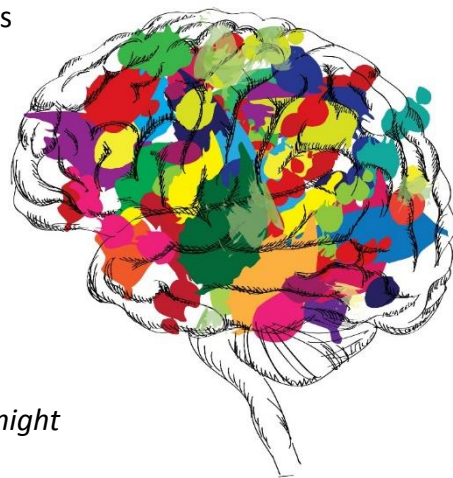
- Homelessness in our City/Town
- Single-use plastics ending up in oceans and lakes
- Not enough young people are entering the skilled trades to replace retiring tradespeople

You are now going to work together to brainstorm solutions to this problem. Have taken part in a brainstorming session before?

- Yes No

Some tips for successful brainstorming:

- all ideas are valuable and worth including
- be creative! No solution is too big, unusual or complicated
- we aren't trying to figure out what won't work, but what *might*



Record some of your favourite solutions below: _____

If you were going to act on one of these solutions, which one would it be? _____

The Problem-Solving Process

There are four key questions you can ask yourself when you're faced with a problem you need to solve – whether it's big or small.

Question 1: What is the problem we need to solve?

There are several steps you can take to make sure you know what the problem is:

Make sure it's not just an opinion: Is there _____?

Look at it from different points of view: what do _____ think the problem is?

Dig deeper: is what you see a _____,

or a _____?

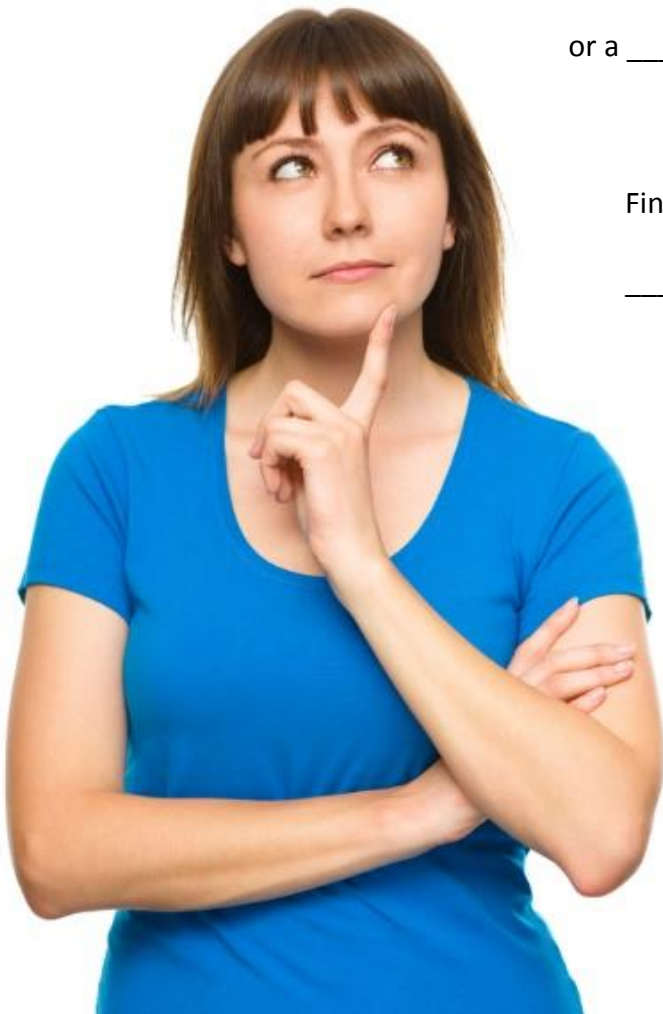
Finish this statement: " _____

_____..."

without including a personal attack or accusation.

Come up with a clear statement: _____

_____.



Question 2: What kinds of solutions could there be?

Once you are very clear about what the problem is, you can look at different ways to fix it.

What is the best approach to this?

- Go with the first possible solution
- Think of several different ways we could possibly solve the problem

Who should be involved in coming up with solutions to the problem? _____

Why is it helpful for other people to be involved in coming up with possible solutions?

You need to think about the _____ of each possible solution. Take ideas off the list if you think the solution could make things worse in the long run.



Question 3: Which solution do I want to try?

Once you have a list of possible solutions, you have to decide which one you're going to try. Here are some important questions to ask to help you with that decision:

Will the solution _____ fix the problem, or _____ fix it?
Solutions that are guaranteed to work are probably worth the extra effort.

Is it a _____ solution, or a _____ solution?
Bandaid solutions don't fix the real problem.

Is there an _____ reason one solution appeals more than others? You may need to choose a solution even if you don't like it.

Do you have the _____ you need to execute the solution? If other people need to be involved for the solution to work, you need them to agree to help.

Once you've weighed your options, you can decide what solution you're going to try.



Question 4: So... now what?

Deciding what solution you think will work is a good first step, but you have to “make it real.” What are some ways you can do that?

You need get _____ from people who can help.

Who do you need to let know that you’re working on a solution? _____

Executing a solution is rarely a quick, one-step process. You need to set _____ to know you’re making progress.

What sentence can you finish to give you a way to measure progress? _____

What sentence can you finish to describe your end goal? _____

What should you do with those sentences? Choose all that apply.

- Write them down
- Keep them in mind
- Check them off as they become a reality

Will the first solution you try fix your problems every time? Yes No

What do you have to do if a solution doesn't work? _____

Will you have learned something from the solution that didn't work? Yes No



Once the problem is solved,
think about how to:

the problem from happening
again.

Question 5: what if the problem is too big to solve?

It can be hard to start the problem solving process when some problems seem so large, or when you feel like you don't have the power to actually achieve a solution.

Break larger problems down into _____.

What four things can you control when faced with a problem that seems too big to solve?

- Our _____
- Our _____
- Our _____
- Our _____

You are not _____. Big problems can be solved by many people working together towards a solution.



Skills for Problem Solving

Problem solving is something we often see listed in job postings.

For a workplace perspective on problem solving, read the article “Problem-Solving Skills: Definitions and Examples” from Indeed.com, and answer the questions below. A link to the article is available here:



<https://www.indeed.com/career-advice/resumes-cover-letters/problem-solving-skills>

1. Although problem solving is often identified as its own separate skill, this article suggests that there are lots of other related skills that go into effective problem solving. List them below:

1. _____	2. _____
3. _____	4. _____
5. _____	6. _____
7. _____	8. _____

2. Review the examples of problem-solving skills provided and fill in the blanks or answer the questions below and on the following page.

When identifying possible solutions, you will need to know how to _____
the problem to others. You will also need to know what _____
_____ are the most appropriate when seeking assistance.

What skill involves gathering information about a problem by brainstorming with other team members, consulting more experienced colleagues or acquiring knowledge online?

Employers highly value individuals they can trust to both identify and then implement solutions as fast and effectively as possible. What skill is this associated with?

The first step to solving any problem to _____ the situation. Your _____ will help you understand problems and effectively develop solutions.

3. Review the suggestions under how to improve your problem-solving skills. Choose one, and describe how you could practice it in your life – either at home, in school, at work, or with friends.

4. Where can you highlight your problem-solving skills on your resume? _____

5. Can you also reference problem-solving skills in your cover letter? Yes No

Dr. Johnson's Lab / Zombie Apocalypse

The article you just read outlined the importance of research and analysis, good communication, teamwork and decision-making when solving problems. It's time to demonstrate all of those skills by solving a mystery.



Have you ever done an escape room before? Yes No

What kind of challenges or tools might be involved in an escape room? _____

What kind of skills might you need to be successful? _____

Break-in boxes are the opposite of escape rooms – instead of trying to get out of somewhere, you're trying to get in.

Have you ever tried to get into a break-in box before? Yes No

What sort of challenges or tools might be used in both an escape room and a break-in box?

In today's game you won't just be trying to get into a single box, but *three different boxes*, each of which are in this room. There are clues scattered around the room as well. You will have to find them and figure out their purpose to be successful. This is a timed challenge, which begins once your facilitator reads the story that sets up the game. When the timer goes off, the game is done – whether you've broken into the final box or not.



Are you ready?

The story:

You are attending a series of professional development workshops, and your facilitator has called in sick. But don't worry – a colleague of theirs named Dr. Johnson agreed to step in for them. Something is a bit strange about Dr. Johnson though – he spends more time looking at his files than teaching, seems distracted and anxious, and keeps leaving the room unexpectedly.

When he's out of the room, you and the rest of the group decide to take a peek at the files that have Dr. Johnson so worked up. You discover that Dr. Johnson has plans to unleash a deadly airborne virus that would turn anyone who came into contact with it into a zombie. However, you also learn that the doctor has created an antidote that can reverse the symptoms. He plans to save it for himself and family.

You have a limited amount of time to use Dr. Johnson's files and clues in the room to find the antidote and save yourselves (and the world!)

Did you break into the final box and get the antidote? Yes No

How do you think solving a puzzle in the game is similar to solving a problem in the real world?


Who in the group demonstrated good critical thinking and problem solving skills?

Which problem solving skills did you use while trying to solve the puzzle of Dr. Johnson's Lab?

What would you do differently next time you attempt to get into a break-in box?

Selecting the next session's topic

We will be discussing another skill from the list during our next session. Each of these skills can be developed and practiced in a gaming environment, and are important not only in games, but in a non-gaming environment.

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1. Verbal communication
 2. Non-verbal communication
 3. Observation skills
 4. Decision making
 5. Problem solving
 6. Teamwork
 7. Flexibility and adaptability
 8. Work ethic
 9. Conflict resolution
 10. Resiliency

Which skill should we look at next? Participate in the poll to let your workshop facilitator know.

Wrap-up and take-away

We looked at lots of different techniques we can use to solve problems today. Before the next session, practice problem solving by working through the activity below. Your facilitator will be asking about the activity at the start of the next session.



Think of a problem you have in your life, and then ask someone else for their opinion of the problem.

Do they see it the same way you do? Yes No

Thinking of that problem, finish the sentence “this wouldn’t be happening if...” as many times as necessary to confirm it’s really a problem, and not just a symptom.

Have you confirmed what the actual problem is? Yes No

Brainstorm possible solutions to the problem. Get other people’s input if possible.

Will you act on one of those solutions? Yes No

Reminder: record the date and time of our next session below.

The next session is: _____ at _____.