Collaborative Problem Solving (CPS) process

What is it?

Collaborative Problem Solving (CPS) is a step-by-step approach to reach a collective understanding of a problem and then work together to agree solutions and how to implement them. It is a structured method of problem-solving based on collaboration and evidence. You can use the Problem on a Page and Solution on a Sheet templates to help guide you through each step.
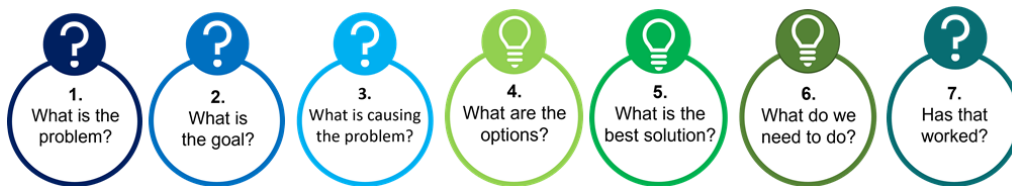

Figure 1: The Collaborative Problem Solving (CPS) approach

Benefits at a glance….

- **CPS** provides a structured approach to finding solutions together with stakeholders
- Builds engagement and commitment to shared solutions
- Avoids a 'quick fix' solution that fails to solve the whole issue

When to use it?

Collaborative Problem Solving is appropriate when:

- A concern has been surfaced that affects multiple stakeholders in different ways
- Stakeholders articulate a problem in different ways based on their own perspective
- There are many possible ways forward but no consensus about which is best
- Time and effort will be required to implement solutions – trial and error would be costly
- The problem raised does not lie within one person's sphere of influence – but is feasible to tackle at a local level (ie it is not a University-wide issue)

How to use it?

The most important preparation for using CPS is to gather together stakeholders with a range of perspectives so you can understand the problem from all angles. Once you have identified who will be involved, you can start working through the seven steps in the CPS method:
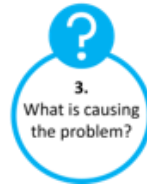
Phase 1: Understanding the problem

The problem statement is a simple sentence that contains the problem, but no causes or solutions. It says **"What's wrong with what, how much and so what."** Ask questions such as 5Ws and 1H (What is the problem? Why is it a problem? When? Where? For Who? How do we know it's a problem?).

What evidence do you have to demonstrate the problem? You are aiming to write a succinct problem statement that summarises the problem and that all stakeholders agree with.

What do you want to achieve? What is the goal or desired Future State? Remember this is about Continuous Improvement - the problem may not be eliminated in one go but as long as you can achieve an improvement in the current situation, that moves you towards your goal, then the method is working.

The next step in the CPS method is understanding the reasons for why the problem is happening. This is called Root Cause Analysis. There are a number of techniques you can use here such as 5Whys and Fishbone analysis. What data or evidence can you consider to help you really understand the root cause of the problem.

The first three steps of the method are all about understanding the problem and refining your problem statement. Once everyone is satisfied that the problem statement accurately represents the problem you are trying to solve, you can move to considering solutions.

Phase 2: Agreeing the solution and action plan

This is the idea generation stage. What are the possible solutions that the team can suggest? How could you reach the Future State or at least make progress towards it? Imagine there are no constraints at this point, what would you do in an ideal world? How could you work towards that?

Having come up with a range of options, now it is time to shortlist and select the best ones. Choose an approach that is appropriate based on the nature of your problem, the time available and the preferences of the group, for example voting, Impact/Effort analysis or assessing the ideas using agreed criteria.
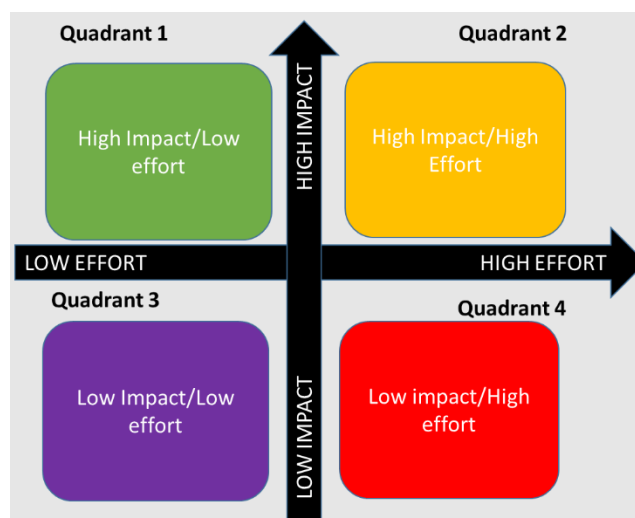

Figure 2:Effort/Impact analysis

Now you have agreed the best solutions, it is time to create an action plan. What are the actions needed to deliver the solution? In what order and to what schedule? Who will be responsible for each task? How will you stay on track? How will you monitor results?

Have the solutions you have implemented solved the problem? How will you monitor results? It is likely that the answer to this question is not a simple yes or no. You need data to tell you if you are making progress towards solving the problem.

What next? Share your results and find ways to share your learning. Could your solution be implemented elsewhere, for example in another department? Do you need a new plan to address new issues that have arisen or because your solution didn't quite go far enough? Keep everyone who was involved informed and don't forget to celebrate success!