PROBLEM-SOLVING

"The measure of success is not whether you have a tough problem to deal with, but whether it is the same problem you had last year" –John Foster Dulles

You need problem-solving skills no matter what path you take in life.

Problem-solving is not about intelligence.

◦ It is about strategy, creativity, and courage.

◦ Good problem-solvers don't freak out about the problem, they focus on finding solutions.

Problem-solving Cycle

◦ Define the problem

◦ Brainstorm possible solutions

◦ Analyze possible solutions

◦ Decide which path to take

◦ Implement the solution

◦ Evaluate and seek feedback

Define the Problem

◦ If the problem is not well understood, the solutions might not be effective and valuable time and effort could have been wasted.

◦ Companies often hire consultants to come in and help find the root of their problems and design solutions that will make a difference.
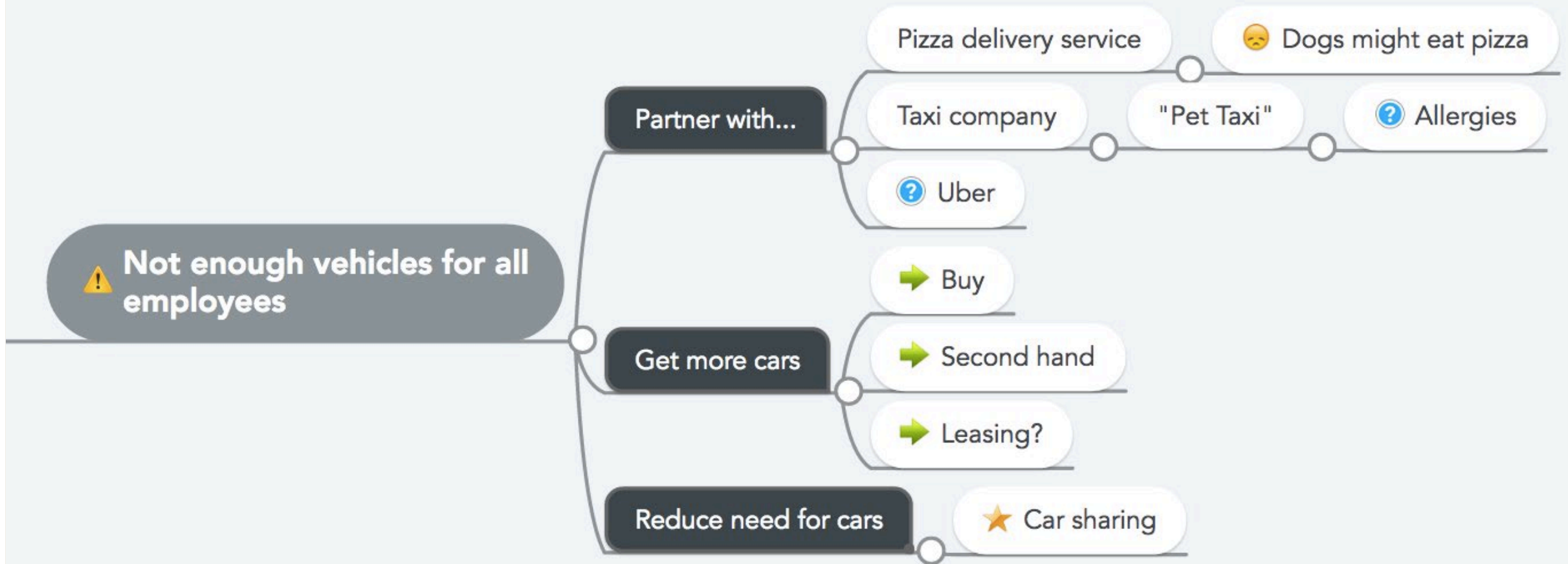
Use the 5 Whys

- Use the 5 Whys strategy to help you get to the root of a problem.
    - Maybe I've run out of groceries a few days before I get paid again. The problem is deeper than "I don't have enough money"
        - Why don't I have money to buy groceries? I spent it on other things earlier in the month.
        - Why did I spend it on other things when I knew I needed it for groceries? I forgot to budget out my money for the month and didn't notice how many events and special occasions I'd need to pay for at the beginning of the month.
        - Why didn't I realize how many special occasions I'd need money for at the beginning of the month? I haven't been keeping up with my planner so I didn't see them coming.
    - It's just an example, but you can see how other things besides money are the real cause of the problem.

Brainstorm Possible Solutions

◦ Think through all the tools you have in your mental toolbox that could help you solve this problem.

◦ If you don't have the tools yourself, can you think of anyone you know that does? Or anywhere you could go for more resources and tools?

◦ If this is a math problem, you probably want to do this step rather quickly in your head. For more serious and longstanding problems, you'll want to write out a list or use a mind map to organize your thoughts.

Mind Map Example

Analyze Possible Solutions and Choose one

◦ Look at the information you already have, the risks inherent in each possible solution, and whether you have the resources you need for each option.

◦ Don't be afraid to ask for help in choosing a path to follow.

Evaluate During and After Implementing the Solution

◦ Don't wait until you think you've solved the problem to check if things are working the way you want them to.

  ◦ Perform quality control checks at individual steps along the way

  ◦ "Is this working the way I thought it would?" "Am I getting closer to solving this problem?"

  ◦ Don't be afraid to make a course correction after you start. It's better than waiting till the end and then realizing you should have done something different halfway through.

◦ Ask others for feedback to help you stay on track.

Other Skills that help with Problem-Solving

◦ Creativity

◦ Researching Skills

◦ Teamwork

◦ Emotional Intelligence (managing your emotions and stress when things get tough)

◦ Risk Management (weighing pros and cons of different options and minimizing cons when you can)

◦ Decision Making