

Einstein is quoted as having said that if he had one hour to save the world he would spend *fifty-five minutes defining* the problem and only five minutes finding the solution.

This quote does illustrate an important point: before jumping right into solving a problem, we should step back and invest time and effort to improve our understanding of it. Here are 10 strategies you can use to see problems from many different perspectives and master what is the most important step in problem solving: **clearly defining the problem in the first place!** 

#### The Problem Is To Know What the Problem Is

The definition of the problem will be the focal point of all your problem-solving efforts. As such, it makes sense to devote as much attention and dedication to problem definition as possible. What usually happens is that as soon as we have a problem to work on we're so eager to get to solutions that we neglect spending any time refining it.

What most of us don't realize — and what supposedly Einstein might have been alluding to — is that **the quality of the solutions we come up with will be in direct proportion to the quality of the description of the problem we're trying to solve**. Not only will your solutions be more abundant and of higher quality, but they'll be achieved much, much more easily. Most importantly, you'll have the confidence to be tackling a worthwhile problem.

In a painting, try to decide which portion of the painting is "not working". A clear description such as this area is muddy, too dark, undefined will aid the resolution much faster than "I don't like this".

# **Problem Definition Tools and Strategies**

The good news is that getting different perspectives and angles in order to clearly define a problem is a **skill that** can be learned and developed. As such, there are many strategies you can use to perfect it. Here are the 10 most effective ones I know.

## 1. Rephrase the Problem

When an executive asked employees to brainstorm "ways to increase their productivity", all he got back were blank stares. When he rephrased his request as "ways to make their jobs easier", he could barely keep up with the amount of suggestions.

Words carry strong implicit meaning and, as such, play a major role in how we perceive a problem. While looking at your painting, say to yourself "how can pull the viewer in" rather than "how can I create a focal area".

Play freely with the problem statement, rewording it several times. For a methodic approach, take single words and substitute variations. 'interest'? Try replacing 'interest' with 'attract', 'develop', 'extend', 'repeat' and see how your perception of the problem changes. A rich vocabulary plays an important role here, so you may want to use a thesaurus.

## 2. Expose and Challenge Assumptions

Every problem — no matter how apparently simple it may be — comes with a long list of assumptions attached. Many of these assumptions may be inaccurate and could make your problem statement inadequate or even misguided.

The first step to get rid of bad assumptions is to make them explicit. Write a list and expose as many assumptions as you can. Don't do things the same way just because that is the way things have always been done.

For example, must all paintings have a frame? Must all paintings use only paint? Can a center of interest area be in the center?

## 3. Chunk Up

Each problem is a small piece of a greater problem. If you feel you're overwhelmed with details or looking at a problem too narrowly, look at it from a more general perspective. In order to make your problem more general, ask questions such as: What else could this be? (glass vase becomes opaque, background turns into a land-scape)

#### 4. Chunk Down

If each problem is part of a greater problem, it also means that each problem is composed of many smaller problems. It turns out that decomposing a problem in many smaller problems — each of them more specific than the original — can also provide greater insights about it.

'Chunking the problem down' (making it more specific) is especially useful if you find the problem overwhelming or daunting.

## 5. Find Multiple Perspectives

Before rushing to solve a problem, always make sure you look at it from different perspectives. Looking at it with different eyes is a great way to have instant insight on new, overlooked directions.

For example, something looks "wrong" in your painting. Try looking at what is around the offending area, look at through a mirror, reduce it to black and white through digital photography. Look at it from the viewer's perspective - would the viewer find an area confusing?

Try writing your problem statement many times, each time using one of these different perspectives. How would your teacher see this problem? Your children? Your mom? Try to find the differences and similarities on how the different roles would deal with your problem.

To be continued......