Further readings and templates

# Chapter 14: Problem solving and creativity

## Stage 2 - Identifying causes

The Application of The Kepner Trego approach:

The K-T process (as it is called) has five stages (reflecting the first two stages – ‘Problem Definition’ and ‘Establishing the Causes’ – of a typical process):

1. Define the Problem

2. Describe the Problem

3. Establish possible causes

4. Test the most probable cause

5. Verify the true cause

*Defining, describing and establishing possible causes* (steps 1-3) for a relatively structured problem is relatively straightforward for the K-T approach, and when it comes to gathering information, the process identifies some very useful questions to ask.

Let’s take a simple example:

***‘We have an individual in a team who does not seem to be not working particularly hard.’***

(The wording ‘*seem to be*’ gives us permission to be flexible over how we define the issue.)

As a simple issue, we could see this as:

 A failure of the management to set up policies to penalise poor performers;

 A poor attitude on the part of the worker;

 The worker seems to have a lack of ability in doing what is required, or

 The individual has never had a good understanding of what their role is and what they should be doing.

However, to take a more structured approach to identifying the causes of the issue, we could produce the table given below in order to help us step 3 in the approach – i.e. to establish possible causes. The main advantage that the K-T approach gives is found in the headings across the top of the table – e.g. where the problem is, where we might expect the problem but where it is not occurring, what makes the difference now, and what has changed over time.

If we give some information about the example given above, then we could find we develop the following table.

**Table: Defining, Describing and Establishing Possible Causes for a Problem**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **IS** | **COULD BE but is NOT** | **DIFFERENCES IN THE SITUATIONS** | **CHANGES OVER TIME** |
| **What the problem…** | You hear reports that a team member is engaged with the activity | You hear reports that other team members are completing their work | The issue seems to be with this team member. | Up until 3 months ago, the team member worked as hard as the others |
| **Where the problem…** | This individual is located in the sales team | This individual also works in the project management working team, but that team has not reported any issues. | The sales team is smaller and has a larger budget and task to undertake; This individual came from an IT company whereas others rose through the organisation to join the sales team | Similar problems were reported in the data collection team a year ago, but stopped 3 months ago;  This individual has become less and less engaged with the task. |
| **When the problem…** | This happens every time the team meets | This does not happen in any of the other activities he is involved with. | The team is different.  The demands on the team have increased | The problem has become more pronounced over the past 3 months. |
| **Extent of the problem…** | Limited to Just this individual | No other team members seem to feel engaged. |  |  |

The above analysis can lead us a very different hypothesis from the four alternatives listed above. When we look at the information above, we might argue that the issue is less likely to be a failure of the management to set up policies to penalise poor performers, a poor attitude on the part of the worker, a lack of their ability or a poor understanding of their role, but is more likely to relate to team dynamics in some way – since that is the only differentiating factor.

The next two steps are testing and verifying the probable cause (steps 4 and 5). When we are looking at technical problems, this pattern works well. We find out what the issue seems to be by addressing possible solutions according to how likely it is that we think they are going to solve the problem. However, when it comes to the management of people, we need to recognise that actually implementing and testing different solutions may cause additional problems itself, so we need to gather information from the individual to see what might work on a hypothetical basis.

To test our thinking, we need to examine where the issue ***is occurring*** and ***is not occurring***. If we are to identify an accurate potential cause, then it should clearly differentiate between these two situations. In addition, we could look at our potential causes to identify where the cause is occurring, and whether the same problems are arising as a result. The table below gives us a framework to analyse the example we are working through.

**Table: Developing Possible Causes for a Problem**

|  |  |  |
| --- | --- | --- |
| **Potential Cause** | **True if…** | **Likely cause?** |
| **The team does not have the correct resources** | All the team are reacting the same way | No |
| **The leader’s behaviour is not appropriate to motivate the individual** | There are/have been issues in this team and no other teams; There have been issues in other teams that this leader has led. | Possible |
| **The task is too difficult for the individual** | The individual’s behaviour has been consistent | Unlikely – his engagement has decreased |

The five steps above are all intended to help us understand what the real issue is, and identify the cause correctly, which in turn helps us to generate options which will more accurately focus on the particular problem.

|  |
| --- |
| **BOX: But I have a question *“What do you do if you don’t know and cannot get data about where problems are and are not occurring and so on?”***  Yes, you’re right – and sometimes we cannot know all of the details we might like to know to follow the Kepner-Trego approach as fully as we might want. In such situations, we sometimes have to investigate the causes of problems as far as we can, implement a solution and see whether that solves the issue. If not, then we simply need to start again.  There are times when we simply don’t know what the cause may be. If we take something like the discovery of AIDS in the 1980’s, then all that seemed to be happening was that young men (typically) were getting colds and pneumonia and were dying at a younger age than they should have been. It wasn’t until some investigation was done that linkages were made with other situations that the AIDS virus was discovered. It was then that the search for a treatment could begin. |