Seeing the Problem: Strategies in Decision Making

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Decision-making is often perceived as the single act of making a choice between alternatives. It is this simplistic view that discounts the crucial steps that envelop a decision that cause so many of them to be wrong and/or ineffective. One of the characteristics of a critical thinker is the appreciation for and recognition of the complexity that surrounds an issue (Bassham, Irwin, Nardone, & Wallace, 2002). Before making a decision, the problem must be framed and alternatives identified and evaluated. After the decision, there is the execution required to implement it, followed by the measurement and evaluation of the outcome. The first and last steps, framing the problem and measuring the outcome, are critical steps for effective decision-making, yet they get the least attention in the process. This lecture examines the importance and interdependency of these steps in the decision-making process.

A problem is a question raised for inquiry, consideration, or solution. Often, it is what stands between us and some goal; when “what is” does not equal “what is desired.” Therefore, a problem is not always an issue to be understood or resolved; it can be an opportunity for growth or enhancement. But regardless of whether the question is about correction or creation, recognizing the true nature of a problem is often difficult. Some of the most common obstacles to an accurate problem assessment are 1) lack information to define it, 2) confusing symptoms with underlying issues, and 3) the absence of a clear statement of the desired outcome. Add the personal biases and perceptions of the individuals involved and it’s easy to understand why the successful application of the decision-making process is the exception rather than the rule (Bateman & Snell, 2003).

Framing the Problem

Taking steps to **identify the problem; evaluate the effects of the problem; set objectives and goals; and define the criteria for success** is *framing the problem*. This first phase of the decision-making process assists the decision-maker with knowing what the problem is before attempting to resolve it by clearly defining the nature of the problem, the desired state, and the measures for demonstrating success.

Frequently, individuals and teams get bogged down in the problem-solving process by solving peripheral problems that are symptoms or side-effects and not the real problem. For example, the inability to study may be a problem or it may be a symptom of a more core problem such as the distraction resulting from not having a clear educational goal, the stress and over-commitment from juggling job, family and social demands, or lack of passion for the specific topic. The desired goals and outcome will be different for each one of these root causes, but if we focus on assessing the inability to study, reaching the desired state and success criteria is hit or miss. To solve a problem, you must attack the problem -- not a side effect or a symptom.

A popular technique for getting to the root cause of a problem is called the Five Whys (Senge, Roberts, Ross, Smith, & Kleiner, 1994). You begin by picking the obvious symptom where you wish to start and ask the first why of yourself or the group: “Why is such-and-such taking place?” You will usually end up with three or four answers. Repeat the process for each statement, asking “why” about each one. Write or post each answer near its “parent” and you will find them converging; ending up with dozens of symptoms that are traceable to two or three systemic sources. As you trace the Whys back to their root causes, you will find yourself tangling with issues that not only affect the original problem area, but the entire organization or entity. The problem may not be that the original issue was “wrong”, but that its long-term and far flung effects remained unseen. This is why considerable effort may be necessary to achieve clarity in problem definition because of the systemic nature of everything we do, both

professionally and personally. Today's problems are the result of yesterday's solutions and everything we do has interdependency with other actions.

When the problem statement accurately reflects the issue, the next step in framing is defining the objective and goals. The objective is the ultimate desired outcome. The goals close the gap between the current and desired state. To define the decision goals, a clear understanding of the current and desired state is essential. Evaluating the effects of the problem brings clarity to both the present state and he desired outcome. Who/what is affected? How are they affected? What costs are associated with the problem? What happens if you do nothing? Comparing the desired state with the present state is called a gap analysis. The gap analysis defines what is missing to realize the objectives and helps to set the goals and define the steps for reaching the objective.

How will you know when you've effectively reached your desired state? This may seem like an obvious question, but many made and implemented without clearly defined success criteria. Criteria are the standards the goals and desired state must meet for the decision to be considered a success. If the outcome meets all or most criteria, it's likely to be a good solution. Criteria are measurable indicators of problems, constraints, and/or requirements. One of the most common statements of success criteria is "one time and within budget" which is an expression of the constraints.

Raising Awareness of Personal Biases and Mental Models

Throughout the process of framing a problem, it is important to remember that people (we) have biases that can interfere with objective development of the problem framework. Bateman and Snell (2003) remind us of the following mistakes of reason when during problem formulation.

The **illusion of control** is a belief that one can influence events even when one has no control over what will happen.

Overconfidence can lead to failure because decision makers ignore risks and fail to objectively evaluate the odds of success.

Framing effects refer to how problems or decision alternatives are phrased or presented, and how these subjective influences can override objective facts. In other words, an introduction to a problem can be presented as “pre-framed” based upon a bias or preconceived solution.

Discounting the future during the evaluation of the present and future state, one weighs short-term costs and benefits more heavily than longer-term costs and benefits.

Each of these is an error in critical thinking because they are based upon faulty reasoning. Personal biases and perspectives rooted in years of experience and repetitive reinforcement can make recognition of our fallacious thoughts difficult. It requires practice. One way to mitigate personal biases and agendas is to raise awareness of the variety of information that can surround a problem. Framing a problem requires the following information, organized and categorized as outlined below.

Assumptions: Ideas or predictions accepted without proof

Constraints: Limitations bearing on the problem and difficult to change such as:

Lack of funds, manpower, time, or other resources.

Biases of the decision-maker or other powerful interests.

Criteria: Standards to be met or conditions a solution must satisfy.

Facts: Observed events, past or present, either personally observed or reported. Sources of facts are:

Reading: Gathering knowledge and analyzing other people's experiences.

Observing: Gaining perception of the situation and its relation to the problem.

Questioning: Acquiring knowledge and different views of the problem

Testing: Validating or rejecting possible solutions as new information becomes available.

Opinions: Personal judgments. To be acceptable, they must be informed and bias free. Off-the-cuff opinions are usually of little value.

Definitions: Explanations of terms or procedures for unfamiliar readers.

"Seeing" the Problem

When we gather information about a problem, it is common to simply select the information that confirms pre-existing assumptions. We "download" our mental models and see what we're prepared to see based upon our past experience. For example, when a conflict arises with a learning team member, you immediately recall similar incidents and outcomes from your previous experiences in the lead role and immediately make a decision about your approach to the problem. This may work, but when it doesn't, it's usually because the circumstances were different, making the information about the problem faulty, at best.

Organizational decision-makers often fall into the same trap. Consider the common decision to lay off workers and/or outsource to cut costs when the economy begins to diminish profits. Although many organizations have successfully cut their short-term costs, the savings are often nullified in the long term by the cost of responding to opportunities when the economy rebounds (Herriford, 2004).

An approach to overriding this tendency is to suspend our mental models and see "freshly," to look for our connection to what exists today vs. the past, to immerse ourselves in the current situation. To remove ourselves from our habitual ways of thinking, we do not have to destroy or ignore our mental models (they are still quite useful), but rather we need to begin to suspend and notice them. Doing so, we become aware of thoughts and they begin to have less influence on what we see, we begin to "see our seeing" (Senge, Scharmer, Jaworski, & Flowers, 2004). When we become more adept at suspending our habitual ways of thinking, we begin to see things freshly and from the whole instead of from our limited perspectives. When we suspend our mental models,

we are able to redirect our awareness to the present and become genuinely curious about the information, processes, and people that surround a problem or opportunity – to see the framing details of your *present* experience.

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