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Decision Making: An Architect's Model for Extension Applications

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Abstract

Architects use a four-step process to guide clients in development of a plan. This process can be adapted for use by Extension faculty when they work with clients, whether individuals, groups, or communities. The process, for complex problems, often involves several cycles through the steps, with reviews between the cycles. The process is useful at many levels of decision making, from program planning to meeting management. Benefits from the process include increased and more effective participation and reduced costs in both time and money.

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The challenge for Extension faculty is to provide information to help people make better decisions. Yet the process that people use to make a decision is important, too. For example, Knight (1988) proposes that farmers benefit from using a seven-step process when making decisions related to government programs, and Drake (1993) identifies value in a process for helping couples contemplating divorce. The process used to make a decision may be as important, or more important, than the information available in making a good decision. This article describes a process, used by architects, that has proven highly effective in helping people--individuals, groups, communities--make effective decisions.

Background and Steps

The architect's process is a variation of what has been called the "rational model" of decision making (Stoner & Freeman, 1989). The rational model consists of three steps:

- Define the problem as goals,
- Develop alternatives, and
- Evaluate alternatives and select the best course of action.

I learned the basics of this process as a student of landscape architecture in 1967. One major change, however, was the inclusion of a "gather information" step following "goals" and before "alternatives." This change recognized that landscape design requires a good deal of attention to information, such as about soils, slope, etc.

Since then, I've used this process to help make a variety of decisions, from the design of a regional park to facilitating a forum on salmon policy to structuring an Extension meeting. Now, as a leadership specialist with Extension, I've amended the descriptions of the steps to better fit the various types of people and communities I work with in Extension. The steps I use now are:

- *Step One.* Identify the values at stake, and set goals to achieve them.
- *Step Two.* Gather information to understand the context in which the goals are to be achieved.
- *Step Three.* Create alternative ways to achieve the goals.
- *Step Four.* Analyze the alternatives, and decide which one best meets the goals.

Once the process is complete, the decision is implemented, evaluated, and information fed back to step one for the next decision.

Architects understand that this type of process provides three major benefits. First, it captures the values of the client, which can then be incorporated into the plan. This strategy increases the client's participation in the process and acceptance of the decision. Second, the process creates a logic framework for the decision that the client can review and makes discussions with the client and other reviewers more efficient and effective. And third, the steps build on each other in a synergistic way.

By starting with values and goals, it is then possible to focus on what information is valuable, and by having clear values and information, it is then possible to produce more creative alternatives. When the first three steps have been completed well, the analysis and decision is much easier.

Using the Process with Complex Problems

Architects have found that one pass through the four steps is seldom enough to address most problems. Thus, they almost always repeat the four steps in a cyclical manner. Four repetitions or cycles are the norm, but I've used two for simple problems and as many as nine for highly complex, "wicked" problems where there is a great deal of conflict about values and information. The guidelines for the cycles follow.

- *Cycle 1. Concept Plan.* Complete each of the four steps in an overview, schematic way. Architects often use what they call a "charette," a quick and creative pass through the four steps, often with the client participating. The output of Cycle 1 is a sketchy, concept plan with one chapter/section for each step. This concept plan is then sent to any affected parties for review. An implicit purpose of this cycle is to get participants to use the same four steps and language--to share the same logic model.
- *Cycle 2. Preliminary Plan.* Incorporate comments from the review into the four sections of the plan, and prepare a higher quality, preliminary plan by gathering more information, creating more refined alternatives, etc. Send this product out for review, too.
- *Cycle 3. Draft Plan.* Repeat the process of incorporating review comments and moving the plan closer to final quality by clarifying any goals, gathering any needed information, refining alternatives, etc. Send this official "draft" out for a final review.
- *Cycle 4. Final Plan.* Incorporate comments from the final review into the final plan, and prepare for implementation.

There are at least four benefits of using the steps in a cyclical way (Gallagher, 1987). First, the process provides a review phase between steps that permits others, numbering from one to millions, to be involved in the steps as reviewers. In Alaska I was part of a team that used the cyclical process to engage over 600 citizens in development of the state transportation policy plan (Dilley & Gallagher, 1999).

Second, by reviewing each step several times over the course of the cycles, the content of each step becomes more refined and certain. Indeed, the first product is typically very "rough," with each product being more refined.

Third, there is the opportunity at the end of every cycle for the architect, or client, to make a "no-go" decision should the project not be working out as expected.

And last but not least, the process saves time and money. Despite what appears to be more complexity and more meetings, the process when managed well reduces expenses by clarifying what is important (values/goals), gathering only relevant information, generating superior alternatives, and reducing uncertainty about implementation.

Using the Model

The four steps can be used in many ways. They can be the steps a team uses when developing a program and the titles of the chapters in the team's report. They can be the headings on newsprint sheets that are placed around the wall of a problem-solving meeting. They are easily used as the sub-heads on a meeting agenda to address a decision, and I've used them to describe the reason a topic is on the agenda, e.g., "This topic is on the agenda so that the entire group can review the information provided by the working group."

The cycles also are very helpful. When placing an item on the agenda, it is possible to alert meeting participants to the "level" of discussion, from the conceptual discussion associated with cycle 1 to the highly specific discussion associated with cycle 4. The four products of the cyclical process, each with four sections representing the four steps, are useful as a record of the development of and logic for a decision. Because this entire decision logic is available, the post-implementation evaluation can evaluate not just whether or not the goals were achieved, but also the quality of the information, alternatives, and analysis that were the foundation for the decision.

In conclusion, Extension is increasingly being asked to go beyond providing information to helping individuals, groups, and communities respond to the complex problems of our times. Changes in technology, demographics, and the economy, among others, have created a host of "wicked" problems for Extension faculty that require more than just information. The architect's process is a

simple but elegant tool that Extension faculty can use to help serve in these changing times.

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