



# EPICENTRAL

A Newsletter from Epicenter Development Group  
highlighting ideas that improve organizations

Welcome to Epicenter Development Group's newsletter, EPICentral. The purpose of this newsletter is to highlight fundamental ideas that have helped organizations develop and maintain great manufacturing and service operations. We hope that you find our EPICentral newsletter helpful, and we would welcome your comments on its content.

## A Collaborative Design Process - Action Research

Over the past thirty years, the process of designing systems and solving problems has evolved. It has migrated from an approach where "experts" independently developed recommended solutions to an approach where the system "stakeholders" jointly design and implement practical solutions that best meet their unique needs. The benefits of this shift are numerous and include a reduced time and cost in problem solving, better "buy-in" of solutions, and solutions that are more likely to be successfully implemented and sustained.

The topic of this newsletter is around Action Research which is a process that can be used to guide teams through this collaborative approach.

### Phases of an Action Research Project:

#### 1. Define Project Charter:

- As with any project, the first step is to determine the project goals, roles/responsibilities, schedule, and scope.
- For a good outline of a project charter, refer to the February 2011 EpiCentral article on [Project Charters](#).

#### 2. Research Current State / Collect Data (Research):

- The purpose of this step is to collect enough information that the team can understand both the technical (equipment) and non-technical (cultural) aspects of the system to be changed. Both aspects must be understood and addressed to implement sustainable solutions.
- Information can be collected using interviews, surveys and direct observation.
- As possible, it is a good idea to include a diverse group of people in the data collection process to get a more complete understanding of the system.

### **3. Summarize the Collected Data:**

- After the information has been collected, it should be summarized in a way that makes it easy to understand and meaningful to the group.
- For technical data, this might include the use of a Spaghetti Flow Diagram (see [Oct. 2013 Newsletter](#)) or a Cross-Functional Flow Chart (see [Dec. 2013 Newsletter](#))
- For non-technical data, this might include a flow diagram like the one used for the "Pinch Model" ([Mar. 2009 Newsletter](#)), photographs of the workplace, or a videotape of an operation in action.

### **4. Present the "Research" to the Group (Feedback):**

- Once the research is complete, the information is then fed back to the project team so that all participants have a shared understanding of the current system to be modified.
- This might also include the results of a basic engineering analysis on the collected data to identify, quantify and prioritize potential system issues or considerations.
- The point is that it is difficult to jointly develop a solution if there is no common understanding of the systems to be considered.

### **5. Design / Problem-Solve Using Collaborative Tools:**

- The Action Research process requires the use of collaborative tools that can be used by the project team in the problem-solving or design process.
- Some example collaborative tools include: Affinity Diagrams, Cause-and-Effect Diagrams, SWOT Analysis, Simulation Modeling, and Force-Field Analysis (see newsletter [archives](#))

### **6. Plan for Implementation (Planning Change):**

- The last main step of Action Research is to develop an implementation plan.
- As with the other steps, the goal is to develop the plan collaboratively so that the entire team is engaged in the process.
- Consider the development of work plans (see newsletter [article](#)) for this activity.

### **Other Considerations:**

- The Action Research process can be tailored for use in both technical and non-technical projects. The challenge is to promote a shared understanding of the current system without "pointing fingers" or making people feel threatened.
- Epicenter has developed [articles](#) on a number of collaborative tools that can be used within this process. If you would like more information on any of the available tools, please do not hesitate to contact us.
- Consider the use of an objective, outside resource like Epicenter to facilitate this process when first learning this approach.

## Next Steps

If you would like more information on this topic or other similar types of tools, please contact Bill Proctor with your request at [wproctor@epicentergroup.com](mailto:wproctor@epicentergroup.com) or 216-702-0952. You can also find previous issues of EPICentral at [Newsletters](#).

Mr. Proctor also speaks on a variety of problem-solving and system design topics that can help companies significantly increase the success and profitability of their businesses. If you are interested in having Bill speak at one of your upcoming meetings/events or would like more information on any of the speaking topics, please visit [Speaker Services](#) or you can email [sales@epicentergroup.com](mailto:sales@epicentergroup.com).

Epicenter Development Group is a unique consulting firm that seamlessly integrates the disciplines of Systems Engineering and Organizational Analysis & Development to create practical design solutions to your toughest challenges. It is on the cutting edge of problem-solving solutions and the creator of a unique process called GreenRoom Engineering. This process adds greater value and cost savings for clients as compared to traditional engineering methods.

William Proctor, Epicenter's founder and president, has provided services around the country to more than 100 companies consisting of a variety of organizations; and Epicenter continues to grow as a resource for firms of all sizes.

To learn more about Epicenter Development Group, visit our website:

[www.epicentergroup.com](http://www.epicentergroup.com)

## Epicenter News

Epicenter recently completed an industrial engineering project with GOJO Industries in Wooster, OH.



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