



# 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.

## Productivity Studies - What's Really Happening in the Workplace?

Throughout my career, I have had a number of clients tell me that they don't understand why their labor and equipment productivity is so low. When asked for their opinion on the source of the low productivity, they can provide some insight into what might be going on but don't have any "numbers" to support their position. In these cases, I suggest the use of a simple but useful tool called Group Timing Technique or GTT. GTT is a great way to "go to where the action is" while getting useful data for moving forward on productivity improvements.

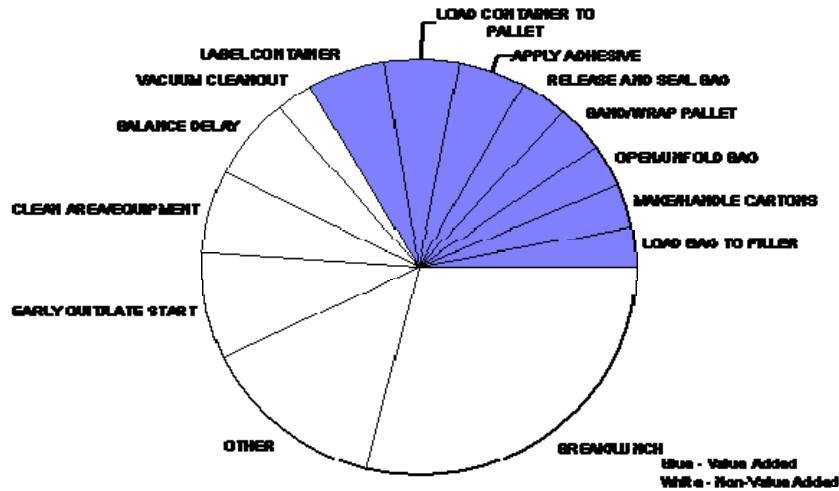
The idea behind GTT is that if you watch an operation for a slice of time then you will get insight into how the operation functions on a regular basis. GTT studies won't provide results that are statistically accurate, but the results obtained over a one-shift or one-day period will be a good enough measure for identifying, quantifying and prioritizing opportunities. In addition, the study results can be used as a basis for justifying investment costs in new software and equipment, additional training, or other improvement efforts.

The following are the steps that I use to complete a GTT:

1. Identify the office or production area to study. One person can typically watch up to three to five people in one area during a study.
2. Communicate with the department supervisor or manager that you will be studying their area, the purpose of the study, and the study method being used. Ask them to recommend a "normal" day or shift for the study. Ideally, you would like to do the study during a "normal" day -- not a day, for example, when new employees are being trained.
3. Spend some time before the study watching the selected personnel to identify the activity categories (different types of activities that people do throughout the day). Typical categories can include: for example, "load box on pallet," "inspect part," "apply label," "enter information into computer," and "assemble part A to part B."
4. Create a data collection form which lists one possible activity category in each row. Leave extra rows blank for categories that you might add during the study. If you will be studying more than one person, you will need to add separate columns on the

form to track individual employees separately. If you would like a sample form sent to you, please contact us at [sales@epicentergroup.com](mailto:sales@epicentergroup.com)

5. Start the study at the very beginning of the day or shift. Each minute, on the minute, identify what each person is doing and put a "tick mark" in the row of the activity and the column of the person. Don't be afraid to ask if you are unsure what the employee is doing. Add new activity categories, as required, during the study to track activities that you think are significant. Also, since you can't skip minutes during the study you will need to either take breaks while the people being studied are on their breaks or have a person relieve you during the study.
6. At the end of each hour, switch to a new blank form.
7. At the end of the study, add up the "tick marks" in each activity category for each person.
8. Then add up the category totals for the entire group. This information is now available to make a pie chart or table to show the study results (see examples below).



Pie charts and tables are useful, but often the results have more impact if you can equate the time being spent on activities to dollars (\$) per year. Dollars spent per year can be calculated with the following formula:

$$(\% \text{ of time for the activity}) \times (\text{number of people affected}) \times (\text{hourly wage}) \times (\text{hours per day}) \times (\text{working days per year})$$

For example, if the study showed that twenty percent of the time, three people are waiting on a material handler to bring more material then the cost per year would be:

$$(20\% \text{ lost time}) \times (3 \text{ people}) \times (\$20.00/\text{hour}) \times (8 \text{ hours/day}) \times (250 \text{ working days per year}) = \$24,000 \text{ potential savings per year}$$

**Final Thoughts:** GTT is a relatively quick and easy way to get insight into the factors that affect your productivity. Although I recognize that spending eight hours watching a group of people work may not sound fun or productive, it can offer you valuable information and insight toward improving your operations. And you may be surprised at what you see and save when you take a closer look . . .

## 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.

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