conwaymanagement

Conway Management NEWS – vol. 17 no. 3

547 Amherst Street, Nashua, NH 03063 USA Tel: 603-889-1130 www.conwaymgmt.com

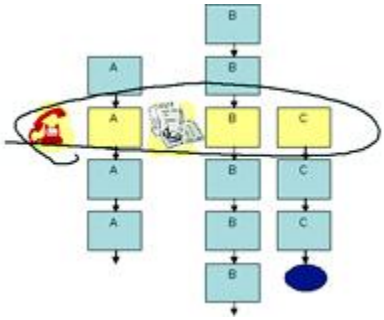
Improving Individual & Group Productivity

By: Sheila Julien, Senior Associate

The news is full of trouble: sales declines, downsizing, more sales declines, more downsizing. For those of you worried about survival, "improvement" might seem like a "nice to have," like later, when business is better. But for many organizations improvement is key to survival. But it is more important than ever to work on improving the right things – the things that will enable you to compete successfully in the turbulent marketplace ahead.

Many organizations today must produce as much or more value with fewer people, or the reinforcing downward spiral of sales and jobs will continue. This article focuses on how you might help a group or individual (perhaps yourself!) produce more value per workday.

To quickly reiterate the point from our last issue, you use different tools and methods to improve productivity of a process that passes through several people or operations (depicted as the sequential steps) than you would to improve the productivity of people who might participate in several different processes and may have other work besides (depicted by the circle). If you want to improve process productivity, see our February '09 issue. In this issue, we focus on people productivity – how to improve productivity when your work involves a number of processes or tasks.



Our methods and tools for improving individual and/or group productivity are useful when you have more work to do than the people can accomplish in a reasonable work day or when you need to reduce overtime or free up valuable resources so they can focus on more valuable work. The more valuable the resources, the more benefit you get from freeing up some of their time. This is especially useful for knowledge workers, such as managers, sales reps, engineers, lawyers, or consultants; but is also useful for anyone who may lose some of their time to interruptions or non-value adding activities.

The first step to improving productivity for any group or individual (yourself included) is to gather useful and accurate data about where the time goes. By identifying and quantifying the non-value adding time-sinks, you can trace the root causes and eliminate them.

We have seen three ways that people gather information about where the time goes.

- Some organizations ask everyone to estimate what percent of time they spend on what. While this has the advantage of being easy, it often doesn't help much. We have found that when we compare estimations to actual data collection, that the accuracy of estimations can be very poor. The big breakthroughs come from the new insights people can get from gathering the hard facts about a situation.
- A second way is to keep a log of where the time goes. This provides better data, but is cumbersome to maintain and even more cumbersome to summarize and analyze.
- Our preferred method is to collect a random sample of where the time goes. We do this by setting up a signal that goes off randomly, at which point you tick mark the activity you are engaged in. This way, you get good data about where the time goes, without the time-consuming collection and summarization required by a work log.

Work Sampling: Four Steps

Step 1 — Plan the Time Study.

- Decide who will participate and get everyone on board
- Determine the scope, sample frequency, and duration of the study that will best support your goals
- Develop a list of the activities participants spend time on and categorize them. Test your list before you roll out the study
- Decide how you will gather and record the data

Step 2 — Collect the data.

Step 3 — Summarize and analyze the data.

Step 4 — Identify next steps to act on the data so as to free up more time for creating value for customers.

You can find much more detail on Work Sampling in the Conway Charting Solutions Plus, but here are some basics to consider when planning your study:

Planning a Study

Participants: If you want to improve your own time, you will be the only participant, but if you want to find ways to improve a group's time, you need to decide who to involve. Do you need to collect data from everyone, or could you select a sample of participants if their work would represent the typical work day? A sample will often suffice for identifying systemic obstacles, if the workdays are similar for the whole group. But if the data is highly variable, you need a larger group before you can feel confident that the problems and opportunities that surface in the sample are representative of the whole.

If you are helping others to improve their productivity, you need to get them on board before you can collect reliable information. As Upton Sinclair observed, "It is difficult to get a man to understand something when his job depends on his not understanding it." Make sure you have incentives in place to get accurate data. If you are facilitating a productivity improvement effort for a group that feels threatened by it, you must address that threat to realign the incentives before you proceed.

Scope: Scope refers to what areas and what time frame to sample. If you want to increase engineering productivity, you might focus on a particular business unit or a type of engineering resource for which the extra productive capacity would be most valuable. If your goal is to free up time for the accounting department during month-end close, you will want to gather data about just that time period (for several closing cycles). Sample frequency: How many times per hour will you sample the activity? Choose a frequency that will give you enough data in a short enough time frame without being too distracting.

Duration: The longer you run your study and the more data you collect, the greater your confidence that the problems and opportunities that loom largest in your sample data are really representative of the whole picture. But you don't want to gather data forever – you want to act! The optimal duration will depend on how much variation there is. The less variation you find, the more confident you can be in the conclusions from a shorter sampling study.

Activity List: When we conduct a random work sampling study, we develop a list of activities that people believe consume their time, making sure to include any non-value adding activities. Should walking across the building to the fax machine be on your list? A meeting may be very valuable or a complete waste of several people's time. Instead of a single category "meeting", you might want to include "waiting for meeting to start" and possibly even "rehashing old decisions" or "going down a rat hole." Data such as these would tell you what you could gain from implementing more structured and effective meeting practices.

Once you think you have a good list, run a test with a few people for a few days. Ask them to jot down questions, ambiguities, and omissions so you can resolve these before you roll out your study to a larger group. You will want to have consistent activity lists and consistent understandings of them for all the participants, so that the data can be effectively rolled up and interpreted.

Sampling mechanism: Determine how you will trigger data collection. We have tools that can help: pager-type devices available for lease and our Charting Solutions Plus has a desktop random timer that not only triggers the data collection, but also summarizes and charts the data. Or you can go very low-tech with a random number table and a wristwatch or kitchen timer, or ask an administrator to do this and use the announcement system or send a text message as a signal that it is time to record what you are doing. Feel free to call us to discuss what methods might best suit you and your circumstances.

547 Amherst Street, Nashua, NH 03063 USA Tel: 603-889-1130 www.conwaymgmt.com

Summarize the Data

As you complete the analysis, you will want to summarize the data. If you are manually collecting tick marks, you can use a summary sheet like this to consolidate the data.

Work Sampling Tool — *Conway Charting Solutions Software*

Need additional copies of Charting Solutions
Visit www.conwaymgmt.com/software

Work Sampling Summary Sheet

Pareto of Activity | Pie Chart of Category

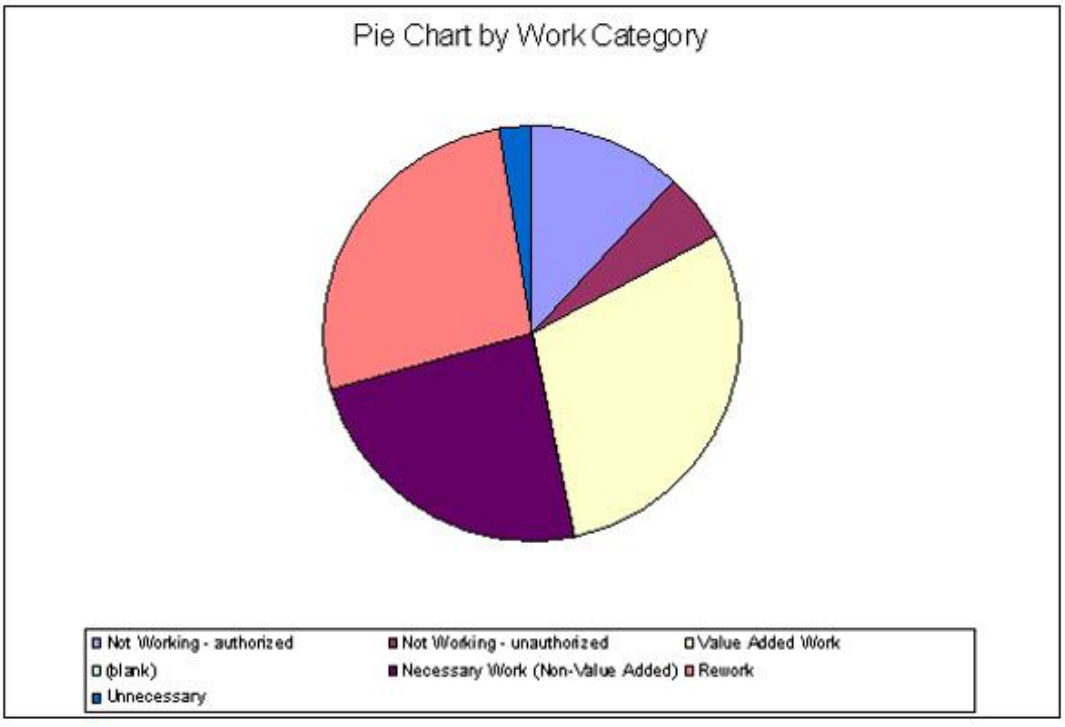
Enter the daily tally from individual tally sheets into columns below. Include date and code if desired.

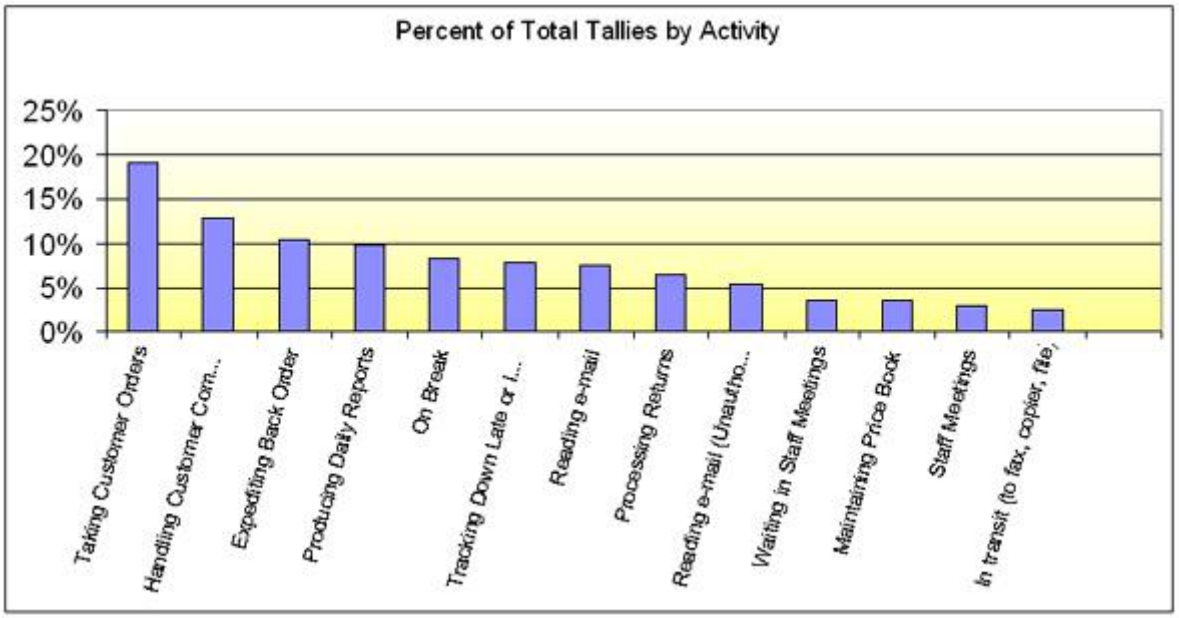
Category (if you choose, you may edit list on Menu tab)	Specific Activity (this column is linked to the Individual Tally Sheet)	%	Date / Code / Total Tally	Fri	Mon	Tues	Wed	Thurs	Fri	Mon	Tues	Wed	Thurs	Fri	Sat
Necessary Work (Non-Value Added)	Expediting Back Order	10%	21	4	2	1	3	0	2	3	1	0	0	3	2
Value Added Work	Taking Customer Orders	19%	39	6	4	3	2	4	1	6	4	2	5	1	1
Rework	Handling Customer Complaints	13%	26	3	6	5	2	4	1	0	2	1	2	0	0
Value Added Work	Reading e-mail	7%	15	2	1	0	2	0	4	1	1	1	1	1	1
Not Working - authorized	On Break	8%	17	1	1	2	1	1	3	1	2	1	2	1	1
Necessary Work (Non-Value Added)	Producing Daily Reports	10%	20	1	3	1	2	2	3	1	1	1	2	1	2
Rework	Tracking Down Late or Incorrect Data	8%	16	2	1	3	2	1	1	0	0	1	3	2	0
Unnecessary	In transit (to fax, copier, file)	2%	5	1	0	1	0	1	1	1	0	0	0	0	0
Rework	Processing Returns	6%	13	2	4	0	2	3	0	0	1	0	0	1	0
Value Added Work	Staff Meetings	3%	6	1	0	0	0	2	0	0	1	0	0	2	0
Necessary Work (Non-Value Added)	Maintaining Price Book	3%	7	3	0	0	0	0	1	0	0	1	0	2	0
Not Working - unauthorized	Reading e-mail (Unauthorized, Not Working)	5%	11	2	1	1	2	1	1	1	1	0	1	0	0
Not Working - authorized	Wading in Staff Meetings	3%	7	0	1	0	1	0	1	1	1	0	0	2	0

Individual Tally Sheet | Summary Sheet | Menu | Pareto Chart of Activity | Pie Chart of Category

Ready

If you use our desktop work sampling tool, the data will be summarized and charted for you like this:





Act on the Data

Once you have gathered enough data, analyze the results to identify how much time the non-value or low value activities consume and what you can do to reduce or eliminate it.

- **How much time is spent answering questions or correcting problems?** What are the types of problems and questions? What can be done proactively so that fewer problems and questions arise?

  A marketing group in a retirement community found that they spent 30% of their time on the phone fielding calls. When they realized how much of their time this consumed, they sought ways to eliminate the need for some of the calls while improving value to the customer. First, they used a check sheet to gather data about the types of calls. Over half of the calls were questions regarding move-in and move-out policies. They discovered that the materials explaining these policies were poorly written. By improving the materials, they simultaneously improved customer satisfaction and reduced the time the marketing staff spent answering phone calls.

  A telemarketing group we worked with found they spent a surprising amount of time on internal calls gathering answers to customers' questions — and then calling the customers back. Once they had this data, they gathered data about the most frequent questions and solved the problem by providing telemarketers with easy access answers.

- **How much time is spent on pure non-value-add?** What can you do to reduce or eliminate these?

  A group found that a substantial portion of meeting time was wasted waiting to start and going down "rat holes", so they implemented more formal meeting management techniques.

  A dispatching operation realized they spent 10% of their time walking between the phones, radios, fax machines, order printer, and message cubbies. The office space had been laid out based on where the phone jacks and available outlets were. When they swathe data, they rethought the layout and were able to improve productivity by nearly 10% by engaging an electrician for a couple of hours.

  A retirement community housekeeping staff found that 9% of their time was spent in transit. Apartments had been assigned so that every housekeeper had a similar mix of apartment sizes, but this prevented assigning

them to adjacent apartments. By changing the assignments so that each housekeeper was given a consecutive block of apartments, travel time was almost eliminated.

- **Study the larger chunks of work.** What improvements in tools, methods, and sequencing can reduce the time required while maintaining or improving the quality?

  A sales team found that paperwork took up a large chunk of their time. They studied the paperwork and found some was unnecessary or redundant. They eliminated the redundancies and found quicker, easier ways to fulfill the remaining paperwork requirements. This enabled them to increase their number of customer calls.

  A group of engineers found they spent nearly 10% of time looking for reference materials and 20% of their time in meetings. They revised the system for storing and retrieving reference material, and by examining the meetings they were able to find ways to accomplish the same objectives in less than half the meeting time.

  A housekeeping staff found that cleaning bathrooms, part of their core value, consumed the largest amount of time. The team studied this work to develop improvements in tools, methods, and sequencing to increase speed while maintaining or improving the quality. Better sequencing allowed the chemicals they used the optimal time to work. Larger squeegees accelerated shower wipe-down time. Very small, stiff brushes cleaned crevices better and faster.

Once you have the data, gather people together to study and discuss it, and you will know what to do to improve it. If the people involved share in the desire to improve productivity, you will no doubt find some areas of work that can be removed, streamlined, or eliminated by addressing the underlying causes.

Errors or omissions are frequently one of the causes of lost productivity. One of the ways to reduce or eliminate rework is to prevent errors from happening – by building “poka-yokes” or “fail-safes” into your process. Using poka-yokes will be the subject of an article in our next issue.

If you are interested in discussing how to set up or analyze a work sampling study, please give us a call. We welcome your comments, questions, suggestions, or additional observations. Write to mj.king@conwaymgmt.com.