Food for Thought™

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In This Issue

In This Month's Topic I discuss balancing process and agility…

Regular features to look for each month are:

- Monthly Morsels
  Hints, tips, techniques, and references related to this month's topic

This Month's Topic

Achieving Balance

Achieving balance is an important aspect of success both personally and professionally. On a personal level, many people struggle with achieving a reasonable "work-life" balance – a balance between an individual's work and personal responsibilities.

Over the past 25 years, the workplace has become increasingly competitive. Businesses are reporting huge profits and increases in productivity without noticeable increase in payroll. Simply working hard is not enough anymore, especially in this economy where a seventy-hour workweek has become the norm. American workers spend on average twelve weeks more each year at work than their European counterparts do. What little time is left is sprinkled between family and sleep.

The availability of smart phones and high-speed internet connections has resulted in many people bringing work home and on vacation. All of this can result in increased stress and burnout.

Some companies have begun to recognize that employee performance and loyalty improves when workers achieve a more reasonable work-life balance. These companies help employees by providing amenities such as on-site day care, extended childcare leave, family leave for caring for elderly parents, and working from home options.

Tips for Achieving Work-Life Balance from the Mayo Clinic

The Mayo Clinic [1] has identified several things you can do to help achieve a healthy work-life balance. These include:

- **Track your time.** Track everything you do for one week, including work-related and personal activities. Decide what's necessary and what satisfies you the most. Cut or delegate activities you don't enjoy or can't handle — or

share your concerns and possible solutions with your employer or others.

- **Take advantage of your options.** Ask your employer about flex hours, a compressed workweek, job sharing, telecommuting or other scheduling flexibility. The more control you have over your hours, the less stressed you're likely to be.

- **Learn to say no.** Whether it's a co-worker asking you to spearhead an extra project or your child's teacher asking you to manage the class play, remember that it's OK to respectfully say no. When you quit doing the things you do only out of guilt or a false sense of obligation, you'll make more room in your life for the activities that are meaningful to you and bring you joy.

- **Leave work at work.** With the technology to connect to anyone at any time from virtually anywhere, there may be no boundary between work and home — unless you create it. Make a conscious decision to separate work time from personal time. When you're with your family, for instance, turn off your cell phone and put away your laptop computer.

- **Manage your time.** Organize household tasks efficiently, such as running errands in batches or doing a load of laundry every day, rather than saving it all for your day off. Put family events on a weekly family calendar and keep a daily to-do list. Do what needs to be done and let the rest go. Limit time-consuming misunderstandings by communicating clearly and listening carefully. Take notes if necessary.

- **Bolster your support system.** At work, join forces with co-workers who can cover for you — and vice versa — when family conflicts arise. At home, enlist trusted friends and loved ones to pitch in with childcare or household responsibilities when you need to work overtime or travel.

- **Nurture yourself.** Eat healthy foods, include physical activity in your daily routine and get enough sleep. Set aside time each day for an activity that you enjoy, such as practicing yoga or reading. Better yet, discover activities you can do with your partner, family or friends — such as hiking, dancing or taking cooking classes.

Balancing Process and Agility

Software development teams often struggle with the issue of balance – specifically, achieving an appropriate balance between formal **process** and **agility** - the ability to adapt to change quickly.

Read more about agile with a lowercase “a”.

To be successful, every project needs some level of formally defined process. Without any process, there is chaos. With too much formal process, project teams spend too much time on activities and tasks that may not provide value to customers or the business.

Every project also needs to be able to respond to changes in the marketplace quickly and adeptly. Companies that can do this are better able to handle evolving customer demands in a highly competitive global economy.

The challenge for software development teams is to find a reasonable and appropriate balance between formal process and the need for agility. Ideally, what you want is **Just Enough Process.** This represents the least amount of formal process required to provide confidence to management that the work products will have the required attributes appropriate for your customers and the marketplace in general.

Just Enough Process

In order to achieve **Just Enough Process,** organizations need to examine their software development process. Identify areas where it can be trimmed, if it is too heavy, or beefed up, if it is too lean. Using the Seven Principles of Lean Software Development [2] can help. These principles include:

- **Principle 1 - Eliminate Waste**

  From a lean perspective, waste is defined as anything that doesn't add value. For software development, I define waste as anything that doesn't help the project team meet the needs of customers from the perspective of features, quality and schedule.

- **Principle 2 - Build Quality In**

  Build Quality In means getting it right the first time and focusing on what it is that provides value to your customers. One way to do this is to identify defects in requirements. Focusing attention on requirements by removing ambiguity can help get it right the first time.

  Learn more about writing better requirements...

  Finding defects early requires an effective peer review process. If your peer reviews are ineffective, perhaps you should look at ways to improve the effectiveness of this critical tool.

  Learn more about peer reviews and inspections...

- **Principle 3 - Create Knowledge**

  Creating knowledge is all about learning and sharing information. For software development, this can be done by:

  - Releasing small subsets of key features early for review and evaluation

  - Performing daily builds and running smoke tests against each build, rejecting those where not all tests pass.

  - Using modular architecture to enable new features to be added more easily

  "It is important to have a development process that encourages systematic learning throughout the development cycle, but we also need to systematically improve that development process." [2]

- **Principle 4 - Defer Commitments**

  The principle here is that the more information we have, the better able we are to make an informed decision. By deferring decisions until the last possible moment, you have the most information available to make that decision.

- **Principle 5 - Deliver Fast**

  "Companies that compete on the basis of time have a huge advantage over their competitors: they have eliminated a huge amount of waste and waste costs money." [2]

  Predictable organizations can usually deliver fast. To become predictable, organizations need to define what **Just Enough Process** means for them and then follow that process every time.

- **Principle 6 - Respect People**

  As a manager, you need to trust your people to make good decisions. You can't undermine them and you can't think for them.

- **Principle 7 - Optimize the Whole**

When we look at software development practices, we often tend to micromanage and focus on the parts rather than the whole. To improve software development, we need to take a holistic view and focus on the whole process, not just the parts.

One good way to do this is via a Project Retrospective. This activity can help identify where problems are and how they can be addressed from a holistic perspective...

Learn more about Project Retrospectives...

Once you have examined your development process using the Seven Principles, the next step is to identify changes that will help move your organization closer to achieving **Just Enough Process.**

How will you know when you're in the sweet spot? The only way to know is to try the new process on a small pilot project. Collect a few critical measures as you go through this project so you can compare results to previous projects. Some examples might include:

Pre-release Metrics

Requirements Stability

- How many requirements are there?
- How many requirements have changed?
- What percentage of all requirements has changed?
- Is the trend increasing or decreasing?

Code Stability

- How many code modules are there?
- How many code modules have changed?
- What percentage of code modules changed?
- What percentage of code modules changed in last build?
- What percentage of code modules changed last period?
- Is the trend increasing or decreasing?

Review Effectiveness

- How many defects were found past the point they were introduced (i.e., were not found in a review) as a percentage of all known defects?
- What percentage of people come to peer reviews prepared?

Post-release Metric

Defect Removal Efficiency [3]

This measures how effective your tests are at finding defects that your customers are likely to find based on actual use by customers for a defined time period.

Count the number of defects found during your normal development and testing process and then divide that by that same number PLUS those defects reported by customers during some predefined usage period...

$$\frac{\text{Total defects we find}}{\text{Total we find + Customer reported defects}}$$

Most shrink-wrap software has a Defect Removal Efficiency of between 70-80%. Best-in-class companies have defect removal efficiencies of 99.5% or higher. The higher the defect removal efficiency metric, the better your test cases are at finding those defects that customers are likely to find.

What did you learn?

The point of the pilot project is to assess whether you have achieved **Just Enough Process**. One of the best ways to do this is with a **Project Retrospective**. The retrospective can help identify areas where further changes in the balance between process and agility are needed.

Going forward, you need to be continually tweaking your process based on measures you've defined and results from Project Retrospectives.

In Summary…

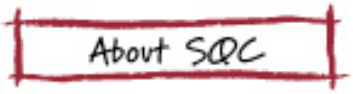
If your stress level is high, work on achieving a better balance between your work and personal responsibilities. The tips from the Mayo Clinic can help you do this. Consider joining or starting a support group in your company to find ways to cope. Your Human Resources Dept. may have additional programs that can help as well.

Similarly, project teams need to find a balance between process and agility. The Seven Principles can help you find the sweet spot of **Just Enough Process.** A Project Retrospective is an excellent tool for assessing whether you have achieved balance.

'till next time…

Every month in this space, you'll find additional information related to this month's topic.

1. Mayo Clinic, Strike a better work-life balance.
2. Poppendieck, M. and Poppendieck, T., Implementing Lean Software Development - From Concept to Cash, Addison-Wesley, 2007.
3. Jones, C., "Software Defect Removal Efficiency", IEEE Computer April 1996.



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