Process in Education

Those who believe in the process perspective tend to see processes everywhere. The bus driver who has an accident didn't follow the proper process. The executive who acquires a company that doesn't pan out would have done better if she had followed a better process. The toy that arrives broken clearly wasn't packed and mailed using an appropriate process.

Jack Grayson knows a lot about process. He earned a doctorate from the Harvard Business School and later served as the Dean of two well-respected business schools—Tulane and SMU. In 1971, he was appointed chairman of the Price Commission under President Nixon and claims that it was during that time that he really became aware of how little American corporations knew about productivity and quality. He convinced President Reagan to launch the Baldrige program which gives awards each year to American organizations that demonstrate outstanding productivity and quality [1]. When he left government in 1975, he founded the nonprofit American Productivity and Quality Center (APQC) [2]. For over 30 years, APQC has been working with a wide variety of public and private sector organizations to improve both their quality and their productivity. APQC, today, has over 357 member organizations, 12% of which are global. APQC is well known for providing benchmarks, for conducting studies of business performance, and for its Process Classification Framework—a common taxonomy for all processes.

In recent years, Jack Grayson has turned his attention to a new area: Improving the quality and productivity of the public schools in the United States. As Jack consulted with a number of schools on their problems, he began to see processes that weren't very efficient or effective. Being the entrepreneurial leader he is, Grayson proceeded to set up a major APQC initiative to focus on how to improve educational processes [3].

Unlike most countries, where schools are controlled by the federal government and centrally coordinated, US schools are controlled at the state or even the local level, and are extremely diverse in all aspects of their operations. The minute one begins to study US public schools, one can see many areas where process thinking would help. In the US, it's as if each state or local school system is required to invent all its basic ideas from scratch, and then change them as committees and legislatures constantly promulgate new laws and regulations. Thus, suppliers, like those that sell textbooks or software applications, are forced to follow a variety of requirements, tailored to meet widely varying local and state procedures. As any business person knows, building and running a system that must respond to widely varying requirements is a lot more expensive than running one that responds to a standard set of requirements. And, of course, the costs are passed on to the customers, in this case, the local taxpayers. Worse, money spent on textbook acquisition or software systems development, isn't available to spend on teachers or activities that directly support student learning.

In many cases, the school systems themselves don't even realize just how different they are, since each one is more focused on implementing laws promulgated by local, state, or federal legislatures than in considering the practices of school systems in other states. And, indeed, without a graphic language, like systems or process diagrams, they might never focus on these issues.

I can well remember a project at a large copy machine company where we encountered 50+ different procurement processes. We suggested that they were all rather similar, but the groups or accountants implementing them all proceeded to explain why the differences were important and necessary. In the course of several months, we worked with the accountants to diagram the processes involved in each different procedure. As the diagrams were developed and compared, the accountants themselves gradually began to realize that the various processes were, in fact, just variations on the same basic set of activities. Diagramming the processes was necessary to focus the individuals on a new way of thinking about their work—but once it was undertaken, new insight was achieved. In the end, the organization moved from over 50 procurement processes to 3 standard procurement processes.

The same was true in Montgomery County Schools, MD. When we looked with a process eye on better ways to get copier repairs and reduce the time teachers spent standing in line, they found $4.2 million dollars of savings and released 10,000 hours of teacher time for instruction.

In addition to the savings, local education managers report that employees are now, for the first time, beginning to think cross-functionally and to look for opportunities to root out waste and improve both instruction and operations. In essence, employees are beginning to feel more empowered and take ownership of their processes.

Figure 1 illustrates a process architecture diagram that Montgomery County Schools developed with APQC's help. In itself, it's simply a relatively clean statement of the major processes that the school system needs to manage. But, once combined with other views of other systems, it's the

beginning of a search for common processes that different school systems share. And, of course, once common processes are identified, one is in a position to share the effort of defining a standard process that can be the basis for things like common software development efforts or standard textbook acquisition procedures.

Those working in business process work are familiar with approaches like these. Several large corporations have followed this approach when they sought to standardize their own business processes throughout the world. Each division in each different country begins by defining their basic architecture. Then teams meet to see where there are common processes, and subsequently work together to standardize the processes to the degree possible. Initiatives like these have saved organizations millions of dollars by reducing, for example, the instances of ERP software supported by the organization, or by standardizing the job descriptions of employees, making employee transfers or salary systems much easier to manage.
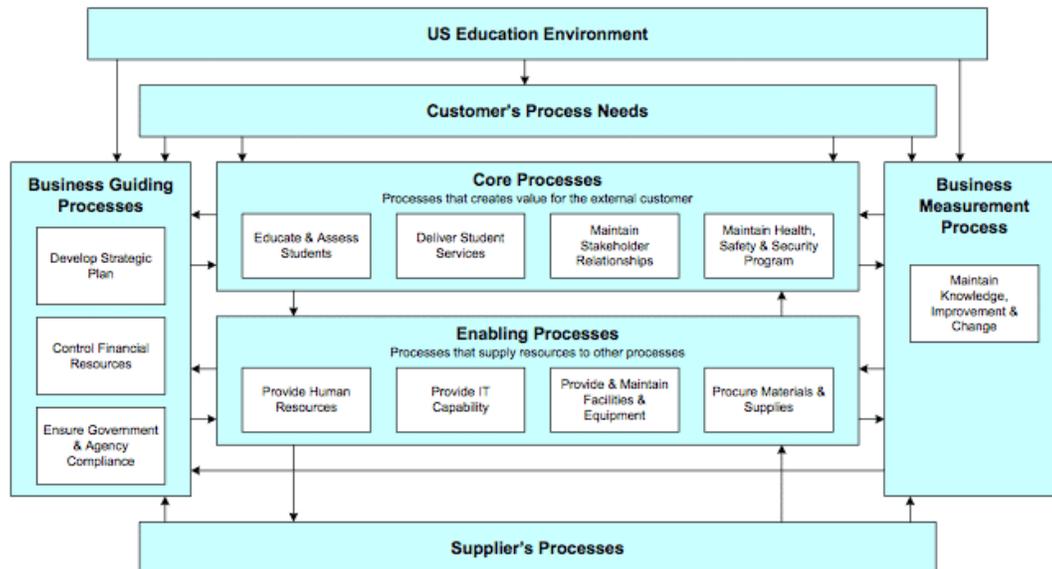

Figure 1. Montgomery's Process Management Model (After an APQC newsletter.)

Obviously, the US public education system has special problems, responding as they must to different state and federal legislatures. On the other hand, international corporations have similar problems, since their local processes must respond to local government tax and employee legislation. One standardizes what one can and builds in flexibility where one must.

Figure 2 illustrates an example of a standard process that one of the education teams is working on. Again, as with corporate process efforts, one is always concerned with the goals and the associated precision. If a team is trying to define a good overall process, imprecision and loose ends, like one sees in Figure 2 are acceptable. The goal is agreement on high level activities, not precision. If one were to move on and seek to define a process that could be automated, there are lots of loose ends that one would need to define in more detail. At this stage, given that many schools have not thought of their work in process terms, APQC is encouraging a beginning.

As with any initiative like this, APQC must sell the school systems on the value of the initiative and sign them up one at a time. As with selling process to business managers, some get it and are quick to join, while most are skeptical and need to be convinced.

APQC began the initiative, which it terms the North Star initiative, in 2009. The initial idea was that APQC would work with a limited number of K-12 school districts to apply the Process and Performance Management (PPM) approach they had used in business to benchmark and help organizations become more productive. The initial effort involved 10 school districts and focused on training leaders and employees of the districts, and then coaching them on specific improvement projects. In those districts the initiative has already led to substantial improvements.
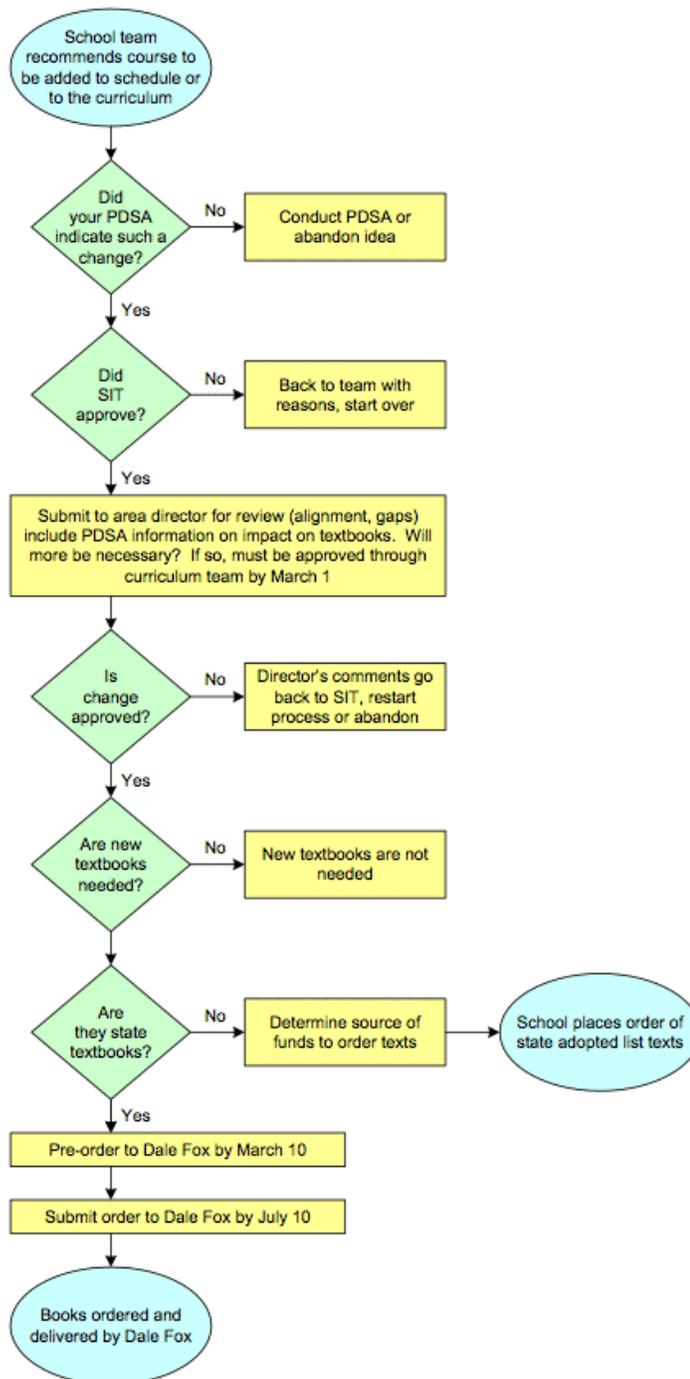
School team recommends course to be added to schedule or to the curriculum

Did your PDSA indicate such a change? — No → Conduct PDSA or abandon idea

Yes

Did SIT approve? — No → Back to team with reasons, start over

Yes

Submit to area director for review (alignment, gaps) include PDSA information on impact on textbooks. Will more be necessary? If so, must be approved through curriculum team by March 1

Is change approved? — No → Director's comments go back to SIT, restart process or abandon

Yes

Are new textbooks needed? — No → New textbooks are not needed

Yes

Are they state textbooks? — No → Determine source of funds to order texts → School places order of state adopted list texts

Yes

Pre-order to Dale Fox by March 10

Submit order to Dale Fox by July 10

Books ordered and delivered by Dale Fox

Figure 2. Process for Adding New Courses and Ordering Textbooks (After an APQC newsletter.)

APQC found that most all of the districts they worked with early on were ignoring improvements in other areas or school systems, even in their own cities or states.

APQC also noted the incredible fragmentation and isolation within the U.S. public education system: There is little coordination between kindergarten, K-12, community colleges, universities, colleges of education, charters, private or religious schools, and the ultimate employers. APQC is planning to use process management and supply chain concepts to explore how the different systems can be better integrated.

Finally, APQC noted that participants were almost totally focused on outcomes, and didn't have a clear idea or plan for changing the processes in order to generate the improved outcomes. APQC has put a lot of stress on getting education managers to focus on the organization of the specific activities that link processes and performance outcomes.

Most of the districts have uncovered waste that amounts to something like 30% of their activities, and have begun to eliminate unaligned and non-value-added processes that are wasting time and money. APQC estimates that this work will save the first participating districts some $110 million

dollars. As Jack Grayson said in a recent interview: "Think what this type of savings could mean nation wide!"

As of June, 2013, APQC had signed up 81 US public school systems and one school system in Victoria, Australia for their full-blown program. The program, as a whole, stresses that one improves processes in order to improve performance. Thus, one begins with performance measures, then backs into the processes that deliver those results and looks to see how the specific processes can be made more efficient and effective. A narrow focus on either outcomes and measures or on processes won't get school systems where they want to go—it takes a coordinated effort. As a non-profit, outside agency with no political axe to grind, APQC is ideally situated to help schools work together to make improvements.

In 1975, when Jack Grayson founded APQC, there wasn't a lot of process thinking going on in US companies. Six Sigma was still a decade off, and Business Process Reengineering wouldn't burst on the scene until 1990. Grayson pioneered getting organizations to share information, to develop good process-based benchmarks and, eventually, to define standard process frameworks. Today, he is driving a similar effort focused on US schools. It will undoubtedly take time to gather momentum and develop standards that US school systems find useful. Given Jack's record, however, one suspects he will get there—and, as he keeps pushing, one can only hope that he will significantly improve the performance in public schools in the US.

Till next time,

Paul Harmon

<u>Notes</u>

[1] The Baldrige Awards are named after the then Secretary of Commerce, Malcolm Baldrige. For more information, see: www.nist.gov/baldrige/

[2] For information about APQC, see: www.apqc.org

[3] For information about the APQC's education initiative, see: www.apqceducation.org

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