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Use 12 pt font.
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At the top, write:

(NAME)

Elective Credits being petitioned for six credits

ADLD, TQM Total Quality Management: Principles and Elements (3)
ADLD, TQM Total Quality Management: The Implementation Process (3)

Total Quality Management (TQM) is the systematic approach to constant improvement throughout an organization. This includes Dr. W. Edward Deming’s, the Father of the Quality Evolution, 14 points; quality analysis; problem solving; systems theories; process flow; measurements; data collection and analysis; and facilitation.

Introduction

Beginning in mid-1998, while I was employed by Lucent Technologies and worked for the professional services organization as a resource manager, I realized that there was a business need to get organized. I realized there was a desperate business need to develop quality control processes because millions of dollars in work was being compromised. The work in the organization was sending out a technical person to implement and install a telecom solution at customer premise. That might consist of a new call center piece or other component to assist in the customer’s telecom needs and organization. That sounds simple enough, however our customers were not happy with the time it took to complete the work. Often, there were disconnects within the organization or something would not be handed off on time.
As a resource manager responsible for scheduling the work to consultants, I had the rare opportunity to understand all of the components, at a high level, of the entire organization.

I understood how the telecom solution might be sold, come in as a request, need to be scheduled to a consultant, and then finally have work completed and billed.

With this knowledge and some oversight from my manager, I developed a plan utilizing Total Quality Management (TQM) theories, including process management, which would help the whole organization.

What I would have to learn, without any formal training, was how to identify the existing process, document it, improve it, then follow up for success. Because there were more than eight processes involved in making a sale from cradle to grave, and each had numerous steps, decision points, and resulting hand offs, it required a lot of hard work.

For this essay, I will be addressing eight points:

- Deming’s Philosophy for Management
- Total Quality Management
- Problem Solving Tools
- Systems Theory – Process Quality Management & Improvement
- Facilitation
- Process Flow Diagramming
- Data Collection and Analysis
- Statistical Process Control (SPC)
- Evaluation
Businesses require direction that should be clear and concise, with outlined process and goals. That is what I did with my team to achieve teamwork and success. Attached is a basic chronological set of stories that convey what I learned and what I did with that knowledge.

**Experience**

In 1996, I began working with the newly established Professional Services Organization at AT&T. The organization was established to build a consulting business around call centers. I learned how to manage resources for a consulting business, with the entire cradle-to-grave processes and handoffs in between. My training was wholly on-the-job and as I understood more, I discovered things that needed to be addressed. As a result I realized that with the help of Jim Coats, my manager, who was certified in TQM quality management through AT&T, we could identify the processes, clean them up, change them, and bring them up to quality standards. By cleaning up the processes I knew that we could minimize duplication of work, simplify the resource management, and clean up problems and delays in the billing to the customers. I was able to apply my existing communications skills and learn new skills such as how to facilitate teams, establish clear agendas, and gain an understanding of the clients’ expectations. As a result of my TQM skills improving, my team members also felt empowered to provide ideas to make improvements to their own process.
Deming’s Philosophies for Management

I was having trouble getting a consultant to a customer’s premise in less than three weeks. Another complaint was from our billing team that it was taking a long time to get information to them so that they could bill for work. The process took up to three months for an implementation. I investigated Deming’s Philosophies for Management to see if I could assist with some quality aspects. The philosophies I discovered were mainly for production environments, my organization was a service oriented. As I began to gather information about the philosophies, I took from it what I felt could be used for services. I pondered a couple of the philosophies and noticed that we could implement consistency, improvements, and leadership fairly easily from what Deming had written. One of the elements from Deming was: If the organization could create consistency of purpose toward improvements of services, and the goal to become and maintain competitiveness in the business a more stable work environment could be provided. I realized that I could make a difference by sharing this information and the concepts that Deming had already provided.

I communicated with my immediate team what I had gathered and together we established ground rules for the knowledge that I had discovered. The process for new assignments was to place the information on a white board, from which assignments were worked. We applied the theory of creating consistency of purpose to the process by creating a custom-designed database that was intended to track the work, who was doing it, and how long it took to perform. The new database provided clarity of what, when, who, and why instead of just getting it done haphazardly. This new tool allowed us to see what skill set technicians had, for whom they were working, and for what to
bill. Within the first couple of months of using the new tracking system business was more efficient; however, I began to realize there was more work to do. There were still gaps in the process and not enough communication between teams.

**Total Quality Management (TQM)**

The term “Total Quality” was very popular in the late 1990s. It was one of the catch-phrases that was being thrown about in our business, but did not appear to be taken seriously. My manager delegated me the task of researching how the TQM process was being used in similar business environments to our own and report back on my findings. The American Society for Quality (ASQ) website states, “Total Quality Management is a term first coined by the U.S. Naval Air Systems Command to describe its Japanese-style management approach to quality improvement. Since then TQM has taken on many meanings, but at its core it’s a management approach to long-term success through customer satisfaction. In a TQM effort, all members of an organization participate in improving processes, products, services and the culture in which they work.” [http://www.asq.org/](http://www.asq.org/)

So I asked the question, “What would success look like, and how we, the Professional Services, know how to get there?” I examined the basics of how work came into the organization. First sales received most of the requests for service, then handed off the request for work to the resource team. They would then request all customer information and locate a resource to do the work, eventually the consulting team would go to the customer’s site. Finally the billing team would send a bill the
customer. The identification of current processes and services was the key in going forward to find value in the approach to quality.

With the understanding and the ability to objectively look at an organization, I could identify possible issues and address them with my team. I could make changes that fit within the TQM philosophies and my own innovated and tried philosophies of quality.

**Problem Solving Tools**

After I identified the need for process and quality work, then I knew that I needed to achieve the support and approval of the senior management and the supervisor staff. From my own experience and from what I had learned in my college classes, that people do not like change. So I came up with a sales-type plan. I did a small e-mail and conference campaign to sell the idea of quality and process improvement to the key receivers, leadership and management. I learned that selling change is a tough prospect; however, with some innovation and perseverance, it can be done. I also learned that I had to re-sell the process during the whole time that I was doing the work for quality and process. Thanks to all of the practice in communicating the success and work that can be done, I can sell an idea with style. After this, I sold the entire organization on process management then other organizations within the company began to take note of what was happening. The word was out.

The next step, after getting approval to start, was with whom to work first. Logically, the first team that received the work requests would be the first to be reviewed. At this point, I did not yet understand how important it is to have the right people in a meeting. I examined the interactions of the team members in my first
meetings and realized that by luck and chance I had recruited the people that knew their work and how to communicate clearly what the current process was, and then how they wanted to improve it. Later, because I had the experience of a good working team, I could better choose the people who would be willing to work to make positive changes in the team, organization, and company. (Item 1)

**Systems Theory – Process Quality Management & Improvement**

I knew who I wanted on my teams to identify and improve process. I developed the steps and timeframes of how to actually do the work. I observed some co-workers using a system that seemed to work well for them in their process work. After doing research with them, I learned of an established set of rules on how to identify, map out, and improve business process in a quantifiable manner. That system is called Process Quality Management & Improvement (PQMI). It was written originally by AT&T in the 1980s. There were four basic steps to follow: (1) process definition, (2) requirements and feedback, (3) measures and control, and finally, (4) identification and support of improvement opportunities. Although these steps were essential, they needed to be broken down into more logical steps for me to accomplish the goal I had set. I developed, with my team, several steps with timelines for each one. At a high level the steps were as follows: (1) establish process management responsibilities, (2) define process and identify customer requirements, (3) establish measures, (4) ensure conformance to customer requirements, and (5) review lessons learned. (Original document, Item 2) The documentation that came out from the team looked different from my own. (Item 3) My list above worked best for the way that I worked, even
though the list that the rest of the team used had elements that I found too cumbersome.

First, I needed to achieve buy-in from the process owner, normally the manager or supervisor of the team. I worked with the manager of the System Management Team first, who worked with Aetna and other specialized, high visibility customers. I knew that I had to share the steps of what needed to happen, with whom, and come up with some measurements for the end success. Having a specific, high level process was only one part. I wanted to be sure that there was clear communication about what I was doing within specific, measurable manner. I developed a worksheet that specifically detailed outputs, measurements for success, and priorities for that manager’s process. That way all parties knew specifically what was expected of them and when those expectations needed to be met, for example, that I would send out meeting agendas to the team and manager within 24 hours 100% of the time. The manager reviewed and signed the document without changing anything. (Item 4)

**Facilitation**

I was given a list of the people who knew their process well, and would be attending the process meetings. I had no idea going into the meetings how much pre-work and planning needed to happen until I started looking at whole task in front of me. I knew that I had to have an agenda. (Item 5) I also knew that most of the meetings that I had ever attended were mostly a poor use of time. So, I put together an agenda with an objective, purpose, and items that were all time-bound. The first meeting with the billing team was a challenge, as they were also used to meetings that they felt were
unproductive. My personal challenge was to sell the team on the use of our meeting
time and to sell them on the process, too. I quickly realized that I would need to sell the
team on process management. The manager had been enthusiastic, and I assumed
that the team would be too. So I verbally went through what we were going to do and
what their process might look like in the end, and how they would be the owners and
creators of it. I brought the team together and empowered them by helping them
recognize that this process was their own, and that they could make a difference. When
they came to the first meeting, I led them to put together their own rules for their
meetings, as well as to understand what we were doing with the time that we were
given. I then documented what they had given me and agreed upon, and I sent that
agreement out via e-mail to the team and their manager. When identifying a process, I
began with the end in mind. Where does the process stop and then where does it
begin?

In order to maintain the momentum, I realized very quickly that I needed to lead by
example. Agendas were sent out the day before the meetings. I was always prepared
and arrived early to meetings. I maintained the schedule during the meeting, keeping to
the agenda times. I sent out the meeting minutes within twenty-four hours after the
meeting. (Item 6) The whole time, I kept the manager in the loop with all activities,
progress, and any issues that may have come up. After I developed the reputation of
good communication, it was easier to communicate with others, because they expected
it and I delivered it.
Process Flow Diagramming

The most amusing part of documenting the process within the billing system was that in doing so, the billing team immediately recognized where the breakdown was occurring within their department. In documenting the processes, the method for streamlining it became immediately apparent, and I was working on ideas on what I needed to do.

Because documenting process was new to me, I needed to learn how to use the application called Visio. The use of the system came easily, and I saw that I could use it during meetings. I set up a projector to my computer and shared the work with the team while updating their documentation, real-time. I was able to take the paper drawings provided to me and put them into a media more conducive to manipulation. Then I learned how to copy the documentation and place it on an internal website. Once I had done so, the team (and whoever else wanted to review the work,) could do so quickly and easily. Again, good communication and the sharing of work quickly made for continued buy in and helped me to empower the team that I was working with almost on a real-time basis.

Current mindsets were a challenge in getting into the process. The team was initially very resistant; however, I noticed that when they were presented with the current process and some of the alternatives, they became excited with the prospect of making changes and improvements. I was determined to keep the team at a fairly high level, meaning that the steps were actionable overall steps, such as receiving a billing request. After I guided the team to identify the high level steps, we reviewed them for
accuracy. We then updated them to increase the flow of work for the team and identified gaps and duplication of work.

After the high level steps were approved by the manager and team, I lead the team to create procedural steps that could be easily followed and which specified timelines for handling issues before handing the bill to the customers. These steps were added as links to the high levels steps in both Visio and on the internal website. Everyone could see what the steps were, where the process began and where it ended. It was then clear at a glance what the team did, even without the procedural or systems knowledge. (Item 7)

Data Collection and Analysis

During the meetings, I realized that I could not write the process and procedure on my own and needed to engage the team members. I observed the associates at work and knew that they had the knowledge to not only write the process, but also the procedural steps with all of the data needed to be successful. These were the people with the expertise of the work. I worked with the team for the high level process, but when it came to the actual procedures, I empowered the members to each write up the step-by-step procedures with whatever was used to get the work done. (Item 8) I would utilize the resources already in place to accomplish the work, whether that was a person, training or a computer system. I developed a procedural form with the guidance of Malcolm Baldridge and International Standard Organization (ISO) standards of writing procedures. I came up with a format to align and teach the team how to write the procedures. I kept the members to a timeline to write these procedures.
When each of the procedures was written, I then placed them on the internal website diagram for review, analysis and approval within a defined time-frame. Whenever there were suggestions for adds or changes I could quickly set up the change and share it with everyone involved by just sending the link in an e-mail.

**Statistical Process Control (SPC)**

The quantifiable piece came with Statistical Process Control. I knew that we had to measure our own successes as well as the organizational successes while understanding the needs of the client, or the business. I needed to find out what the customers required of this specific step of the overall process. The final result: the bill. More importantly, an accurate bill.

I needed to decide on metrics that could be used to accurately describe the success of the process. With the Systems Management Assist Team, I set up the measurements for the amount of time taken to get the documentation from the field, perform the work and turn it into a billing for the customer. My manager gave me a book to review called *Statistical Process Controls, Inc*. My first inclination was that this was going to be over my head and difficult to understand. The reading was dry and mostly for manufacturing. However, I noticed that I was able to pull some good, usable information from the book. The one thing that I found was that I had actually begun using process controls, intuitively. There needed to be a logical flow for process, and each piece needed to have a time-frame for an “ideal state” in order to operate efficiently. (Wheeler, D. J., Chambers, D. S. (1996)., page 191) Each block had to have a set of measurements for success. That would be ultimately decided by the team, but
devised by me. I could calculate the range of what was considered out of control by communicating with the team members and the manager. What were the terms for success, how long should the billing to a customer take after the group receives the request? After we established the measurements, then tested the results for a given amount of time, the baseline for correct flow was documented and tested. The team improved the amount of time that it took to bill the customer and then re-established their own team measurements, with my help.

**Evaluation**

I had a complete end-to-end process, I was able to take the overview and decide what could be streamlined and where those changes could occur. With each meeting we were able to go over the steps and verify how things could be changed in a more efficient manner. Each step had to be agreed upon by the entire team. I gave each member a task to do in order to streamline the procedures. I discovered that this delegation of tasks allowed us to implement changes in a short amount of time and get direct feedback on the new steps. What we ended up with was a very efficient, documented set of steps that could be used both for training purposes and as a reminder for the veteran team members to ensure that all steps were completed.

With the understanding that this was a living process and could be changed at any time, I handed the new procedures to the managers for their approval and implementation among the rest of the billing team.

After the process was completed and I had a chance to see the measurement and success, I used that success to sell the overall process development to the other groups
of the organization. With each new group and each new success, the basic process flow became easier for me and took less time overall.

**Conclusion**

After the work with the organization’s team was completed, there was an evaluation of before and after process work and other changes that were implemented. Everyone was successful by the end. I am proud to say that the team that I was on won The President’s Award for Team Success in 1999. (Item 9 and Item 10)

The skills that I learned and put into action were used to develop more processes and improved the completed processes. Even though I moved on to do different things, the use of the facilitation, evaluation and problem-solving skills that I had acquired have followed me throughout my career path. I embrace the challenges put into my path with a sense of adventure and the anticipation of further successes, with the knowledge that I had acquired I could make a positive impact on any business.
Documentation and References
