

Executive Summary

The purpose and goal of this paper is to share the ideology and strategies related to quality assurance that were applied while creating an operations assessment tool for the university I attend.

It was my belief gained from first hand negative experiences with service offerings that certain areas needed to be revised and that innovation is a must if the university is to stay competitive. As a customer and soon to be alumni of the university I felt inspired as feelings of pride and ownership created an internal want to find a way to help improve the university address some of the challenges it now faces.

The opportunity to help the university presented itself when the professor of my MGMT370 class assigned a midterm project requiring students to use “Are We Making Progress as Leaders” and “Are We Making Progress” questionnaires from the Malcolm Baldrige National Quality Program in their place of employment. It was this opportunity and the cooperation of Dr. Green the Dean of Ferris State Grand Rapids that allowed me the chance to directly address many of the quality assurance challenges of the university.

After completing the midterm project an invitation to make an operations assessment tool for the university was extended. This opportunity would help the university while satisfying the requirements for our term group project for the course.

Once the final project was completed I felt that if our group would of had more time during the semester to work on the project we could have produced a higher quality assessment tool. It was this belief that drove me to volunteer my time and ask Professor Don Brecken’s guidance to keep revising the tool until I felt it ready to be presented to the dean and ultimately ready for university-wide use.

The energies expelled to turn my need and want to help were met by feelings of gratitude and pride as the dean informed me that parts of the tool would be used in an upcoming meeting and was also going to pass it along to the president of the college.

This was an honor and more than I could ever expect to happen when I first had thoughts of trying to help the university. The project I believe achieved a high level of success and ended in what can be compared to a story book ending and one I hope you enjoy reading as well as find intellectually appealing while satisfying the requirements of the “5th Annual Student Technical Paper Competition.”

Quality Assurance and Volunteering go Hand in Hand:

Nathan F. Murley

Quality is wisdom. In all areas of life quality assurance is paramount and must be present to ensure that mistakes are learned from and more importantly, looked upon as gathered knowledge of how to limit mistakes or not make them at all. I relate quality assurance to maturity in life and never knew it until I had a chance to study what quality assurance is in a college course. It was not until my Operations and Quality Management class that I realized I have used this rational in my life for some time and like to see other individuals and organizations I am associated with apply these ideals as their own. Mistakes are as much a part of life as success; if I have to learn from my mistakes I expect everyone else to have too as well. It was this idea that turned a class assignment into a real world project, opportunity, and incredible learning experience that I will share with you in the following pages.

Trial by Fire

My first introduction to quality control was my MGMT370 class at Ferris State University in Grand Rapids, Michigan with Professor Don Brecken. It was during this class that I learned of the many different types of quality assurance such as: Six Sigma, Lean Six Sigma, ISO 9001, and the Baldrige National Quality Program. It was our professor's involvement and passion for quality that inspired the mid-term project that enabled many of the 32 students in the class to have their first experiences with quality while doing a real-world project in quality management.

The assignment was for each student to interview a leader and employees at their place of employment using the "Are We Making Progress as Leaders" and "Are We Making Progress" questionnaires acquired from the Baldrige National Quality Program. The point of the assignment was to gather responses from the leader and employees on 40 statements about how the business is run. Responses are scored on a one to five point basis; one meaning strongly disagreed and five meaning strongly agreed. After quantifying the data gathered, comparisons are made and gaps are identified. These measured responses and significant gaps between the leader and employees' perspectives help to decide where business improvement can be made. The tools are also used by many examiners subcontracted by the National Institute of standards and Technology (NIST) and their primary employers that are applying for the prestigious Malcolm Baldrige National Quality Award.

The first obstacle of the assignment to overcome was to find a venue for the questionnaire. I am a full-time student and am not employed. When this project was introduced at the beginning of the semester I immediately thought of the opportunity it posed; a chance to use a nationally-normed survey tool recognized as a very good way for companies to begin using the Baldrige Criteria for Performance Excellence. These tools (questionnaires), if filled out honestly, address clear communication between all levels of any company which is a key issue when trying to improve an organization. The opportunity that came to mind was to interview the front office staff of the university. I wanted to try to help improve the university I attend and share with them the unique opportunity of which our class was privileged to be a part. I received approval from both Professor Brecken and Dr. Donald Green the Dean of Ferris State Grand Rapids and all University Centers for Extended Learning (UCEL) campuses and proceeded with the assignment the following week.

The assignment was challenging from the onset. I had no experience in administering a questionnaire and could not foresee the challenges that lie ahead to complete the midterm project. Naivety led me to believe I could walk into the front office, hand out the questionnaires, collect them within the day and be half way done with the project.

Unfortunately, this was not the case. Only a small percentage of the staff knew why I was there or knew of the project. The questionnaire made some of the employees nervous. There were immediate questions by most of the staff. They wanted to know why a questionnaire was being administered, what the project was for, which class was the project for, and which professor was teaching class? All of these questions seem standard and should be considered normal.

It wasn't until later in the day when returning to the front office and finding only a single questionnaire filled out that things started to take an odd turn. This is the very instance I realized getting out and doing things in the real world are far different from anything I could read in a text book. My real world experience began with conflict as individuals expressed feelings of anxiety over confidentiality and the possibility of reprimand or consequences for answering all the questions honestly. As I went from office to office there was a concern that other staff members could see questionnaires completed by other staff members and that there should be an envelope placed at the front desk where completed surveys could be deposited to help ensure anonymity. This was fine by me so I placed an envelope at the front desk and let everybody know I would come back the next day to pick it up.

After waiting a week for the questionnaires to be filled out at the end of my patience; I could not make myself believe that in five business days individuals were so busy they couldn't find 10 minutes to fill out the questionnaire? Here is a student from of the university doing a school project, not an official Baldrige Examiner. I would have understood these types of problems if an outside consulting company had been contracted and I was a professional administering the tool; not during something unofficial as a college project. One individual actually scored all fives for every question in all seven areas and wrote "Great Place to work! I love my job!" at the bottom of the questionnaire on the last page. How anybody could look at this questionnaire as anything other than an opportunity befuddled me.

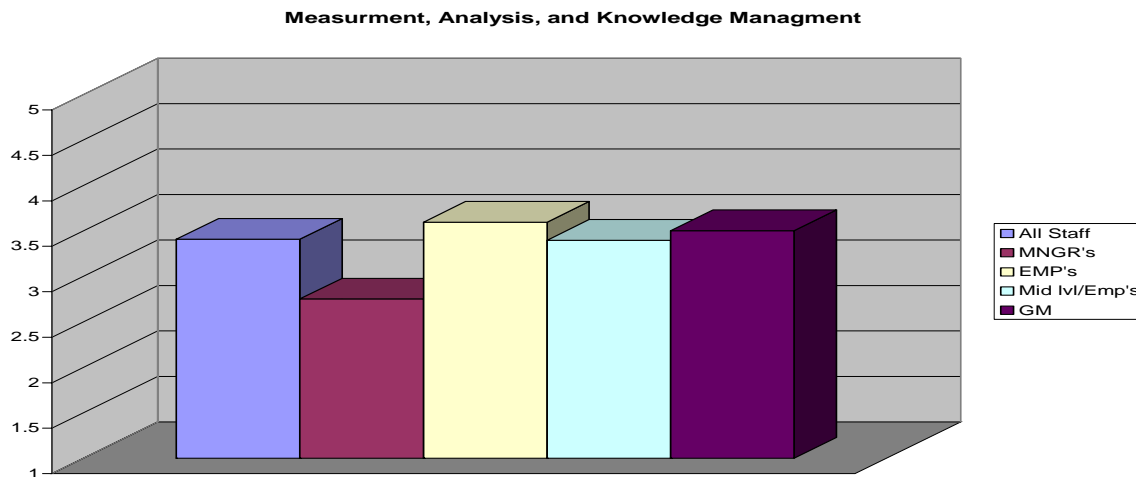
Finally I called it quits and decided to run the project with the questionnaires I had. Time was running out as the due date for the midterm was fast approaching.

At first glance I had not believed there was enough collected data to make any real conclusions. Only 10 of 13 front office employees including managers had turned in a completed questionnaire. I coupled this disappointment with the one I felt after quantifying the data using Excel. Because of the belief that 40% of the data was flawed I did my best to stay positive and give feedback according to the data.

After averaging the data gathered, views of the organization varied less than a full percent point in all seven areas and led me to believe that more than the already stated 40% of data was flawed. This was not because pessimism or the want to find results that would be easy to write about. My beliefs were driven by a couple simple premises. Four of the 10 questionnaires had less than a combined two disagree or strongly disagree on the entire questionnaire, one questionnaire had been scored with all five's as mentioned earlier in the paper, and only having useable questionnaires that represented 69% of the available data.

The area of the questionnaire that displayed the largest gap in averages was Measurement, Analysis, and Knowledge Management. This was the section of the questionnaire I made my recommendations from to fulfill one of the requirements of the midterm project. The following is an Excel graph with the data displayed from the section in 3D form.

Figure 1.1



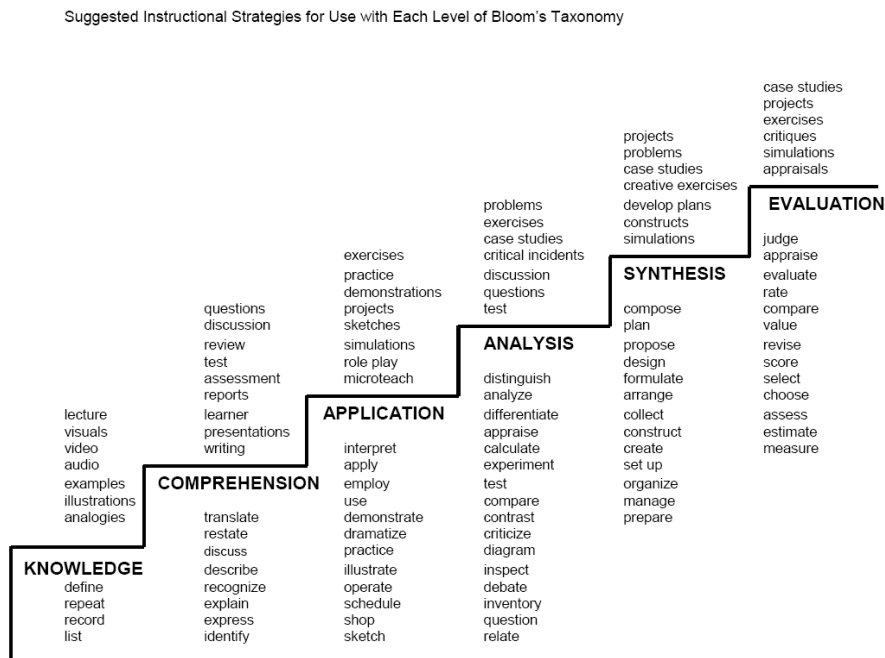
At this time I felt disappointment and anger over obstacles I had faced during the project and that these experiences occurred within the college I attended. The cliché “Trial by Fire” and the lyrics from a Rolling Stone song “You can’t always get what you want... But if you try sometime you get what you need” took on new meaning. Both held true as I started to think about my experience.

The fact was I had gained a learning experience while conducting a quality operations project and one that will continue to help me throughout my life. I was introduced to a higher level of education than most students have a chance to experience in an undergraduate class and am thankful for it. I say this because of research I have conducted into studies of Blooms Taxonomy and realize this project included activities from all three domains and all six steps associated with each domain.

Bloom’s Taxonomy was created by a committee of educational psychologists led by Dr. Benjamin Bloom of the University of Chicago in 1956. Originally Bloom’s Taxonomy contained three domains of educational activities which include: cognitive, affective, and psychomotor. These three domains are then broken down into six categories of cognitive complexity: knowledge, comprehension, application, analysis, synthesis, and evaluation.

The purpose of Bloom’s Taxonomy is its hierarchal layout which ensures students cognitive abilities correlate to one of the six categories. The midterm project included aspects of all three domains and all six levels of cognitive thought. The project in my opinion was at the limit my own cognitive abilities and that of our level 300 course. It was a challenge and opportunity that I am glad the professor introduced our class to. Figure 1.2 includes the Bloom’s Taxonomy and show instructional strategies used at each level of the hierarchal layout.

Figure 1.2



After speaking with Professor Brecken my spirits were lifted to some extent when he explained that some of my experiences were pretty common and most employees feel anxiety over filling out questionnaires that pertain to aspects of their place of employment. He also informed me that 69% of the data was enough to draw some comparisons that could be valuable. During the feedback session Professor Brecken also offered a piece of free advice; he mentioned not to let my anger and disappointment show to ensure I would not “Burn a bridge” and risk losing the relationship that had developed with Dr. Green.

All of Professor Brecken’s feedback was seconded by Dr. Green in our next meeting while doing the presentation for the data gathered. I had thought my learning experience from the midterm project was over; but happily found that not to be true and was also about to be offered an unexpected opportunity.

Adventures in Quality Assurance and Group Dynamics

While going over the results of the midterm with Dr. Green he reinforced most of the points that Professor Brecken had stated. He also went on to say that he had owned a consulting firm before being hired by Ferris and shared some of his experiences as an independent consultant. During our meeting I found Dr. Green to be incredibly approachable and easy to carry a conversation with. He shared an analogy with me that I had not been introduced to before. Dr. Green called it “Score board Mentality” and explained how goals change for a basketball team if they are behind in score or ahead in score and related this mentality to business. His examples were of a business that was established and how that would dictate business decisions compared with a new company trying to establish themselves. During our conversation I mentioned our classes’ final project was to create an operations assessment tool for a real company and give hypothetical feedback like we would if we really had administered the tool. He was very interested, and

inquired about the requirements of the project. I explained them to him and by the end of the explanation he asked if our group would like to use Ferris as the business for our project? I could not believe my ears and instantly felt happy and proud that the dean of the college would extend an opportunity of this magnitude to our group. I assured him we would love to accept his offer.

The free advice from Professor Brecken paid off. During the meeting with Dr. Green I stayed upbeat and positive the whole time. I do not believe had I gone into the meeting with a chip on my shoulder would Dr. Green have extended this new opportunity and chance to again, obtain a higher level of education and learning experience. Even more important was the wisdom gained in how to manage my personal feelings and keep a professional attitude at all times.

The final project now took on new meaning and perspective for me. My original thought for the midterm was of how I might be able to help Ferris State University improve its level of business excellence in customer service through the use of the “Are We Making Progress as Leaders” and “Are We Making Progress” questionnaires. The new focus of our group for the final project was to create a tool that could be used to help create new and innovative processes to address quality management. Most of the issues that our group identified correlated to achievement in enrolment growth goals. Some of the issues included the need for more staff to be hired in different departments to handle the new volume of students. Ferris State Grand Rapids is a satellite campus of the main campus in Big Rapids, Michigan. and primarily attracted a non-traditional student body with regards to age. As enrollment levels grew a shift in the age of the student body created a need for student life activities on our campus. This growth in enrollment also created the need for our campus to have its own financial aid officer and more student advisors to be hired for newly developed academic programs.

The tool would also address the need for the college to view many of its processes from a business perspective, instead of an educational institution perspective. It was our hope the tool would help gather data to create benchmark times for student services rendered and also help standardize many of its process into repeatable steps that would ensure the college was offering a standard of quality in the services offered to its students/customers.

Our group focused on seven areas we felt should be addressed to help improve the university we all attend. The seven areas are: organization, strategic planning, visions and values, communication, administrative functions, social/campus life, and student services. The decision to include each of the sections were made according to group consensus and from viewpoints gained in a meeting with some of the heads of staff on our campus. We were pleased to learn that the staff of the college was aware of every issue we had identified as a group and explained how there has to be strategy to implement change. The dean also went on to explain that one challenge he faced since taking on the responsibility for all UCEL campuses, was that each campus is at a different stage of development. They each contained their own unique student body needs as well as the generic services that are integral parts of every campus.

The final project was another awesome learning experience. Different from the midterm project, the final included valuable group dynamics training and let us experience the feel of accomplishment when bringing a project of this magnitude to completion.

Systematic Approach to Interrelated Processes

After the final project was over I felt that as a group we had turned out a quality project, but one that required some refinement. Unfortunately none of us could dedicate any more time to the project due to our hectic finals schedule and everyday commitments. It was during finals that an idea to keep working on the tool after the semester ended occurred to me. My decision to propose this idea to the group culminated in a posting with the request for everybody to volunteer their time in order to complete the revisions needed to elevate the tool to the next level of quality and success as an operations assessment tool. At this time Professor Brecken had already agreed to guide our revisions and offer support in any way he could to those of us that wanted to continue. In the posting to the group I also requested permission for those of us who volunteered to have the ability to use each group member's respective section of work.

Unfortunately all of the members of the final project group had prior commitments. If the project was to continue then I would have to finish the tool with guidance from Professor Brecken and volunteer the time needed. Thankfully the professor agreed and I dedicated the time required to refine the tool.

Many versions of the final tool were edited and reworked until I was satisfied and felt the tool was ready to be presented to Dr. Green.

The main difference between this version of the operations assessment tool and the version turned in for credit by our group for the final project was the point of view maintained while creating the tool. Dr. Green's words kept circulating through my mind about how each campus held unique challenges while also containing some that each campus held in common. This was a large area of guidance when developing questions for the tool.

There was also the need to understand the university matrix business model. I recall Professor Brecken instructing a systems approach to organizational design and development. He indicated every organization is a system of interrelated processes where the output of one process often becomes the input into another. His challenge to his students was to craft "How" assessment questions that beg those answering the question to describe a process. Once the process is described, it can be evaluated more easily. See questions 13 and 4 of Appendix A.

The idea to create a tool that was generic enough to be used in any service based business led Professor Brecken and I to a thought pattern which brought us to the idea of creating a tool that had education specific questions but also contained questions that could be applicable to all Ferris satellite campuses instead of the Grand Rapids, Michigan campus only.

The two sections of questions are service offering questions which contain 14 questions and university infrastructure questions comprised of 16 questions. Both areas of questions were intended to help the university as a whole to evolve with an ever changing market place and help ensure every student of Ferris State would enjoy the same quality and level of service.

Once the tool was complete Professor Brecken accompanied me as I presented the assessment tool to Dr. Green to gain feedback and to ask if there were sections or areas of concern he might personally have that could help improve the tools effectiveness and ensure it would see some level of use by the university. Again the goal was to help better the university and any selfishness

or pride of work would have to be set aside. If Dr. Green had wanted any changes to be made, I was ready and willing to meet any demands or suggestions he might have.

This was not the case. As Dr. Green gave us his feedback, we came to understand that we had developed the tool to a level that would require approximately an hour or more to answer all of the questions thoroughly. Dr. Green informed us that he liked and approved of tool and went on to say he would be selecting six questions from each section and use them to gather data at the next meeting for the department heads for all UCEL campuses that was coming up in the near future. Refer to Appendix A to review a copy of the final tool.

Again I felt relieved as a feeling of deep satisfaction washed over me. Both feelings were soon replaced with elation as Dr. Green informed us that he was going to present the tool to the President of the University, Dr. David L. Eisler, because of the pride he felt as a leader, that one of his employees and one of his students felt so strongly about wanting to raise the level of business excellence within the university, that we volunteered our time and effort in hopes we could help make a difference. These words confirmed our efforts were not in vain and that the tool would reach one of the most important men within the university was more than we could have hoped for. This just shows that you never know what is going to happen until you try.

Appendix A

Ferris State University Employee Questionnaire

Service Offering Questions

1. How do you ensure the academic programs being offered match the needs of the student body?
2. How do you ensure you have current and accurate data that represents the composition of the student body?
3. How do you ensure the efficient and timely movement of students through the enrollment process?
4. How do you measure if students feel their service experience was pleasant and in line with the designed experience of the college?
5. When providing customer service, how do you ensure the appropriate representative is handling the student's needs? (i.e., the student has reached the correct department to answer their question or address their need).
6. How do you address common issues with the service offerings of your department that students face on a regular basis?
7. How are student life service offerings satisfied by your department or campus?
8. How do you ensure the methods of communication on your campus match the needs of the student body with regards to age, national origin, and personnel technical ability?
9. How are student orientation services offered?
10. How do you ensure students are receiving the same level of education at each UCEL campus?
11. How do you ensure that the types of classes offered such as online and in-seat match the demand of the student body?
12. How do you design and develop the student experience with regards to student life?
13. How do you ensure the approaches describe above (1-12) are systematic with repeatable steps, inputs, outputs, and time frames? How do you ensure they are fully deployed where needed? How are they evaluated in a fact-based systematic manner? How do you ensure their alignment with what's important to the campus or school?
14. How do you ensure performance levels and trends for the approaches describe above (1-12) are measured?

University Infrastructure Questions

1. How does your current business model ensure customer service goals for your department are attained?
2. How do you ensure that faculty growth matches student growth on your campus?
3. How do you monitor and anticipate bottle necks in service offerings in your day-to-day operations?
4. How do you engineer what the student experience will be with regards to the enrollment process?
5. How do you ensure the engineered student experiences are kept current year-to-year?
6. How does the organizational structure promote ease in completing tasks which require approval from a dean or manager?
7. How are channels of communication made available for students to give feedback about their various experiences with your specific campus of Ferris State?
8. How do you ensure the achievement of greater level of success or output?
9. How do the offerings of your campus depend on departments in other geographic locations such as the main campus?
10. How do you gather and analyze feedback from customers to point out problematic processes? How do you ensure these problems are addressed and resolved from an organizational stand point?
11. How is the business model of the university structured?
12. How do you ensure the current infrastructure of your campus matches the needs of the student body, faculty, staff, and other stakeholders?
13. How do you ensure the time it takes for students to experience service offerings such as enrollment and financial aid is efficient and timely?
14. How do you ensure the need for faculty correlates with the needs of the study body?
15. How do you ensure the approaches describe above (1-14) are systematic with repeatable steps, inputs, outputs, and time frames? How do you ensure they are fully deployed where needed? How are they evaluated in a fact-based systematic manner? How do you ensure their alignment with what's important to the campus or school?
16. How do you ensure performance levels and trends for the approaches describe above (1-14) are measured?

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Biography

My name is Nathan F. Murley. I am enrolled in the Bachelor of Science in Business Management program at Ferris State Big Rapids. My current grade point average is 3.5 and will graduate in December of 2008.

I currently reside in Grand Rapids, Michigan and live in a 1 bedroom apartment until I move to the main campus of Ferris State located in Big Rapids Mich.

My hobbies include being a saltwater aquarist, participant in outdoor and indoor athletic activities, web page designing, and building personal computers.

I am currently securing volunteer opportunities with the United Way, Good Will Industries, Big Brothers Big Sisters, and the Red Cross. I believe in giving back to the community while helping well known and respected volunteer organizations.

My goals and aspirations are to continue my education and secure acceptance to one of the top MBA programs in our country. I would also like to be married and have a family and enjoy raising a child with my wife. One day I hope that my professional accomplishments will garner a position as a CEO or CFO of a large global company that is as interested in green technologies as it is in its bottom line.