



# ***Inspired Blended Learning™ Case Study***

Automotive Facility

Planner / Scheduler Improvement Project

**Version 1.0**

## Table of Contents

<b>INSPIRED BLENDED LEARNING™ CASE STUDY.....</b>	<b>3</b>
Strategic Alignment of Planning & Scheduling.....	3
Improvement Process.....	3
Results .....	4
Sustainability.....	5
Learning from this Company's Journey.....	5

# *Inspired Blended Learning*<sup>™</sup> Case Study

## **STRATEGIC ALIGNMENT OF PLANNING & SCHEDULING**

The maintenance culture in our facility had to be studied prior to the introduction. It is much like a speaker has to know their audience. Our culture was one of complete reactive actions with many ineffective subjective PM's. The work ethic of the technicians was very good for the most part, but disorganization on the management and planning level greatly hindered performance. Management had the desire for a world class planning and scheduling department but were unsure how to get there.

Our manager lightly sponsored the beginning of the program. We were given an office area with desks and computers, shelves, kitting bins, and removed from the floor activities. We were still expected to respond to emergency breakdowns and work normal maintenance activities on the weekend. He was unhappy with the amount of "computer" work planning took. Over time he realized why after seeing what we did.

Our work flow processes were nonexistent to begin with since there was no planning done at all. Our manager and supervisor believed a lot in planning and scheduling so developing the workflow processes wasn't too hard. They worked hand in hand with us in the development and editing on procedures, policies, and a work flow that fit our mission and goals in the body shop. Although these have greatly improved over the last year, I think that is something that will never be perfect and continuous improvement will always be needed throughout the program.

## **THE IMPROVEMENT PROCESS**

We set out on launching this program in August of 2016. Our first goal was to begin producing our first, easy kit. This was achieved in a short span, and several more kits were produced. After we had a steady flow of kits, we started writing job plans, and a plan for managing our out of control backlog. The backlog took about 3 to 4 months. It was corrected and useable in December of 2016. With a useable backlog, a few job plans, and kits, we were on our way to a successful program. Initial KPI's showed a drastic deference in work completion on the schedule with an average increase of 26% over the third quarter. The next mark on our timeline is to gain our CMRP certification by the end of the year.

Our benchmarks we developed to use are kits ready, jobs validated and complete versus total backlog, kits consumed weekly, and schedule completion. Our KPI we wanted to achieve was schedule completion over 70%. It was surprising how quickly that was achieved with simple planning. The other KPI that was focused on was backlog at 2 weeks of work or less. We as a whole team still struggle with this. I believe it's due to the age of the plant and reduced maintenance on the equipment from all the unplanned



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production runs on the weekends preventing us from making repairs and doing inspections. None the less we have got it down to where it hovers around 2-4 weeks.

A key player in getting the program off the ground was the engineering department. They saw the value in the program from the start and always answered our questions. The biggest help came with the support they gave in reading Company X blueprints and schematics. Company X prints are uniquely written to say the least. It takes special training to understand them at the level we needed in plans and scheduling. We have gained enough understanding now to find most of what is needed with no help. Even lead techs on the floor and technicians are coming to us for blueprint research help. This is important because it shows the buy in that the floor techs are starting to have in the program and the trust they are starting to acquire in us.

## RESULTS

While the program was being developed the only real impact was on relationships and dynamics between the floor techs, us as planners now, and supervisors. There was some animosity from the floor techs about us being pulled from the floor. Supervisors weren't sure what we were now so they would call us to breakdowns to fix things which only complicated things more. We were seen by the floor techs as only sitting on a computer while they had to work even harder to cover our job. This was mainly due to poor communication about what our job was, and how it will benefit them. This impacted call response time and MTTR some. Over time, as everyone understood their roles, things got better and MTTR and response time dropped back to an acceptable level. As we were able to plan better jobs which allowed more work to be done each weekend outage, production ran better and MBD decreased in frequency. Body 1 use to have at least 1 but an average of 3 MBD's a week. Now we are seeing 1 every 2 weeks. We actually made it 3 weeks before we had a MBD. I think this is due to us as a maintenance depart getting more work done, and executing the work more effectively.

I believe the planning department delivered two-fold on the promises made from the start. The reduction on MBD's, MTTR, and response time have all worked together to increase productivity of the plant as a whole. It was very surprising to see just how much difference we have made. The effects are so great, other departments are visiting frequently to see what we're doing in body shop. This was the point at which I realized just how much payoff the hard work put into the program helped my organization.

The additional benefits we found from the program were work satisfaction, Job performance, and not working every weekend to cover production. The workforce has a higher morale overall. Higher morale resulted in higher job performance. Planning enables more work to be accomplished which in turn, has made weekends off possible. We are at a point now where weekends are almost always voluntary instead of mandatory.



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## **SUSTAINABILITY**

To keep the program going and gaining ground, a few key things have been deployed. More money has been injected into the program to buy better computers, office equipment, and supplies. More bins for kitting of different sizes were purchased. This will enable us to be more efficient in our process. Two additional planners are being added to the group. This was done due to the great job done so far, causing the other two body shops wanting the process done for them also. We will be planning for all 3 body shops in the very near future. Additional training is slated for the end of FY17 and into FY18 to enable use to lean our processes and be even better at what we're doing. We have now won the battle with being separated out from the floor. There are times we are asked to assist with breakdowns due to our abilities in parts research abilities as well as print reading. We are no longer being called to the floor for line recovery of basic faults. We are also no longer used on the weekends in a repair capacity, but as a project manager.

Our leadership still has a couple of hurdles to sustain the program. We are still being used as a catch all for any other special situation the body shop has like shop inspection preparation, shop equipment upkeep, etc. In order to produce at maximum capacity, we will have to stop this in the future. This will be even more on a hindrance when we start planning for the other 2 body shops. Absorbing the other two shops into this program will also have a whole new set of challenges to work through. The future of the program at Company X could be greatly influenced by how that happens and how well it is achieved. A great deal of planning will be needed to successfully incorporate them into this process. Space is the other big issue as it has been since we started. Space in this plant is very hard to secure. Production doesn't want to give up any space, ever, for any reason. We are already very cramped while just planning for one shop. The addition of two more shops and two more untrained planners in this small area surely has its own set of new challenges to figure out.

The ideal next step would be lateral deployment of the program with a standardized process and flow. Implementing this program across the plant, would have a great impact on all the KPI's measured for the plant as a whole. One of the big ones that is looked at is cost per unit. The extra overtime due to the condition of the machines adds a lot to the final cost per unit. Making this program law in the plant would most certainly increase productivity driving down the cost, making the plant even more competitive against sister plants.

## **LEARNING FROM THIS COMPANY'S JOURNEY**

Looking back on this journey, I can see a couple things that if done differently, would have made a more streamlined process and prevented some of the headaches we started with. Job plans we were making didn't need to be for every little thing. We were writing them for single component items with only 2 steps like proximity switch replacement. A procedure was written for this that was 3 pages long with pictures. It makes you laugh looking back at it but also shows the evolution of the program over time. Job plans don't need to detail every single little thing about a job. Doing so, is time consuming for the planner and can be an insult to a technician. We eventually got it down to a more summary view of the



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job and only writing them for tasks of a larger or more critical nature. This seems to be the harmonic balance for our shop. This will be different in every place. Writing them this way is just where the balance point is for our shop.

Training and education in this process is paramount. Initially, I thought this would be a simple thing. Put parts in a box and put a tag on it. I don't think any of us knew what we were in for. The training and education received was a life saver when time sensitive issues arrived that we had not dealt with before, but the training to do it was there. This program is too big of a thing to wing it. Without the training, I believe we would have failed within the first three months.

If I could give a piece of advice to another organization attempting to start this program from nothing, I would tell them to listen, and stay the course. Listening to your coworkers on the floor as well as your fellow planners makes this so much easier. No one has all the best ideas. Solving problems as a group definitely was a big factor on how quickly our program advanced to what it is. The right people were put into the positions and problem solving came naturally due to us listening to each other's ideas and correcting many problems and issues before our management team was even aware of them. That being said, this will not be an easy journey and I hope you don't think it will be. So much time and effort has to be put into it to get it running. Planners have to be able to deal with the beginning problems and have thick skin to handle criticism. If you can endure through it all and listen to each other, it will be greatly worth it, and be a very rewarding program and job.