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Practice Compared to Theory in the Closure of a Large-Scale Manufacturing Plant

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Capstone Project

Submitted in partial fulfillment of the requirements

For the Degree of Doctor of Education in Interdisciplinary Leadership
Not-for-Profit / Social Entrepreneurship Concentration

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University Park, IL 60484

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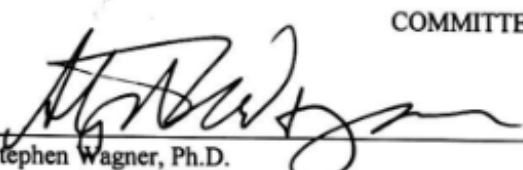
WE, THE UNDERSIGNED MEMBERS OF THE COMMITTEE,
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Abstract

The capstone research study compared practice to theory in the case of the closure of the Caterpillar Joliet hydraulics plant. Using an action research approach, the experience and outcomes of the primary leader, leadership team (followers) and extended team (followers of followers) were evaluated through a process of review, analysis, reflection and action (improvement) planning based on publicly available information and personal reflection. Critical colleagues were used for additional perspectives and to ensure a healthy cycle of discussion, observation, reflection and learning occurred. The desired outcome of this capstone research study was a series of best practices that could be applied to leaders, followers and organizations experiencing a similar event, promoting resilience, hope and overall well-being. As a research tool, the desired outcome was to broaden the body of knowledge relative to leadership through a plant closure and to provide a hands-on example of action research applied in the for-profit segment of a traditional manufacturing company. This research provides managers and leaders with a new perspective on how the structural environment, the situational events, and the style of leadership affect the people and events in a large manufacturing plant closure.

Keywords: action research, plant closure, change management, organizational death

Chapter 1 - Introduction

Plant Background

In April 2017, the primary research investigator (“researcher”) for this study was asked to replace the incumbent plant manager for the Caterpillar hydraulics plant in Joliet, Illinois. As the incumbent plant manager had been in the role for several years, the researcher had indicated previously an interest in leading the Joliet plant closure program should the incumbent plant manager move on. The Joliet plant had been in transition to a full plant closure since a partial plant closure was announced in January 2015 (Okon, 2015).

Plant manager as researcher. The researcher’s interest in leading the plant closure grew from experiences in the following roles: plant manager of the Joliet plant ten years earlier; plant manager just after start-up of the Caterpillar forest products facility in LaGrange, Georgia; and teenager in a community that experienced a plant closure of a long-established, major employer (“Allis-Chalmers a shell,” 1985). As the plant manager of the Joliet plant from 2008-2009, the researcher felt a personal commitment to the extended team at Joliet, and a desire to help the team through the closure transition. As the manager of the Caterpillar forest products facility, the researcher saw the impact of a new facility on the engagement, performance and morale of the team. In contrast, the researcher experienced the far-reaching impact from a plant closure that occurred in the late-1970s and was still impacting the community four decades later (“Allis-Chalmers a shell,” 1985; Ford-Stewart, 2018).

From this experience, the researcher brought a unique perspective to the role of plant manager and a positive intent for the transition work. The researcher believed a plant manager could effectively lead a closure transition where the employees felt they had been treated with dignity and respect. The researcher also believed there was a positive energy that could be tapped

into by focusing employees on future opportunities, especially if resources were provided for the transition. Relative to the transition process, the researcher was surprised by how few resources were formally available or corporately provided relative to recommended lessons learned and overall best practices in a plant closure.

After-action review focused. The intention of this research study was to document the closure experience as an after-action review (AAR). “After-action review” is a term first used by the U.S. Army’s Opposing Force (OPFOR) brigade in their practice of applied and systemic learning from combat missions relative to what went well and what could have been done better (Darling, Parry, & Moore, 2005). As the core intent of this project was to learn, understand and improve the body of knowledge relative to leadership in a plant closure, leveraging action research was an appropriate and reasonable method for the capstone research study (Creswell, 2012). As the potential scope of the research was significant, the focus of the research study was narrowed to a manageable study, leveraging the participatory-reflective-collaborative cycle of the action research method (Creswell, 2012). There were three specific areas of reflection through closure studied: the impact on the primary leader (plant manager / researcher) accountable for the final closure; the leadership team both experiencing and driving the closure process; and the extended plant team experiencing the majority of outcomes from the actions taken. “Critical colleagues,” also known as “critical friends,” were utilized to minimize research bias; to facilitate inquiry; and to provide additional feedback (Herr & Anderson, 2014).

Action research as structure. Action research and the after-action review work well for reflecting on the major events and experiences; capturing lessons learned and best practices; and providing a therapeutic channeling of the experience for something positive and beneficial. The general structure of this research study was as an action research project based on the

researcher's experiences closing the Joliet plant, comparing those personal experiences to the theoretical framework of plant closures and capturing any useful lessons learned. Action research allowed the researcher to be inserted into the research situation experienced first-hand. The methods and tools used were documented and analyzed against the major events of the closure period, and then aligned against various leadership theories as related to the primary leader (researcher), the leadership team and extended team. This research study used the application of action research to add to the body of leadership knowledge.

Plant context for the research. The research study was specifically focused on the principal researcher's experiences, insights and lessons learnings from the Caterpillar Joliet manufacturing plant closure. Though the closure and downsizing of other plants may provide additional insights, the scope of the action research was narrowed to exclusively focus on the Joliet plant relative to the available body of knowledge.

Additionally, the background and context of the plant were important connection points for the principal researcher, leadership team and extended team. The following chapter discusses several key issues that defined the context of the plant, including the long-tenure of the plant as a manufacturing facility; the traditional union-management structure; the shift in the structure of global manufacturing after China entered the World Trade Organization; and the direct impact on the plant from ongoing, global cycles of economic expansion and contraction. In addition, the change in ownership of the property; the relatively recent union work stoppage; and the long period from the announcement of the first partial closure until the final closure are also placed in context and discussed.

Plant start-up, early 1950s. The Caterpillar Joliet plant had a 68-year history in the Joliet, Illinois community with significant changes in direction in the final fifteen years of

operation. The Joliet plant was one of Caterpillar’s first plants constructed outside of Peoria, Illinois—Caterpillar’s original world headquarters location and center of manufacturing for the global heavy equipment company. The plant property was purchased in 1950, with production starting in February 1951. The Joliet site was intentionally positioned near the center of the Dwight D. Eisenhower National System of Interstate and Defense Highways (“Highway history,” n.d.). From a Joliet location, Caterpillar was well-positioned to cost-effectively produce heavy equipment used in the Federal interstate construction programs across the United States (see Figure 1).

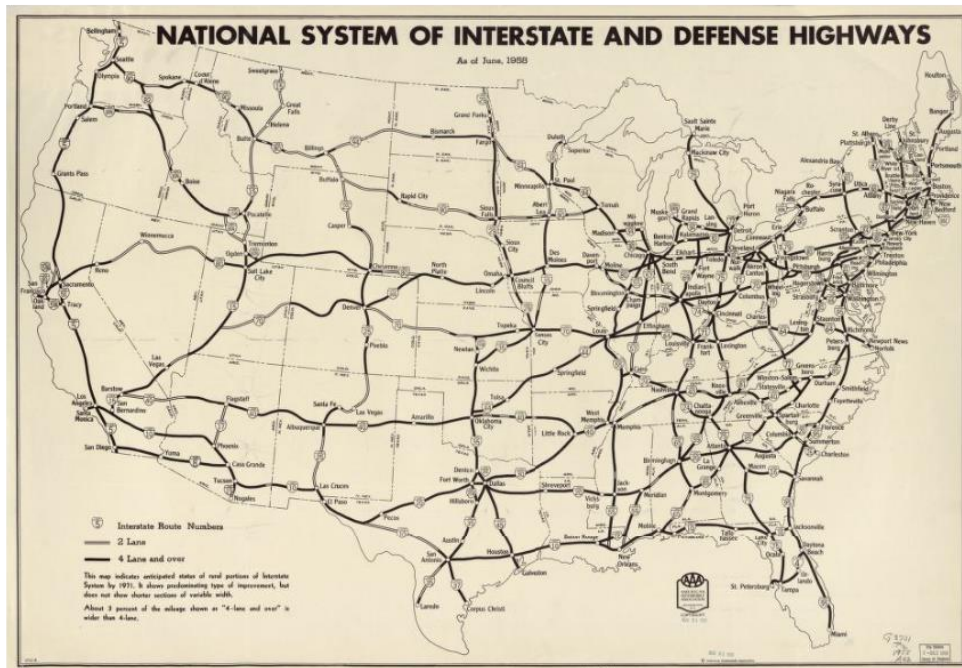


Figure 1. Map of the interstate highway system in June 1958. Adapted from the American Automobile Association. (1958) National system of interstate and defense highways: as of June. Washington, D.C.: The Association. [Map] Retrieved from the Library of Congress, <https://www.loc.gov/item/2011593044/>.

In 1951, as was required by law, the site selected the International Association of Machinists and Aerospace Workers for union representation (“Caterpillar Joliet,” 2019). The relationship between management and the IAM (“Union”) had been mostly uneventful until a contentious four-month strike in 2012 (Mertens, 2012). The IAM would be an integral part of

operations and day-to-day working life throughout the active production years. In the study, the term “union-represented employees” was used to describe Caterpillar employees at the Joliet plant represented by the IAM.

Focus on hydraulic components, 1960-2000s. In the 1960s, the plant was vertically integrated to add hydraulic components, expanding the production capability of the site to include the manufacture of pumps, valves and hydraulic cylinders. As the earliest funding for the interstate highway program phased out, the production of heavy equipment was shifted to facilities in Mexico and Decatur, Illinois. The Joliet plant continued to manufacture hydraulic components and transitioned to a dedicated manufacturing plant for valves, pumps and cylinders until the final plant closure in early 2019. At the peak, the plant employed over 7,000 people in the late 1970s (Robaugh, 2015) across four buildings with 2.9 million square feet of manufacturing and logistics space on 230 acres of property (Corfman, 2003) (see Figure 2).



Figure 2. Historical photograph of the Caterpillar Joliet plant, May 1991. Public domain.

Impact of China entering the WTO, 2001. During the peak employment years, the Joliet plant was producing hydraulic components and shipping these components to Caterpillar vehicle assembly plants and parts centers globally. With the rise of globalization, especially tied to the entry of China into the World Trade Organization in 2001, production strategies for many global manufacturers including Caterpillar, shifted towards manufacturing in region for consumption in the same region (“China and the WTO,” n.d.). For example, international companies began manufacturing products in China for consumption in Asia. Similarly, international companies began manufacturing products in various European Union (EU) countries for consumption in Europe. The global production strategy shift was not unique to Caterpillar, but the result for the Caterpillar Joliet plant was excess US-based production capacity at relatively high wages being exported into low-wage countries for local use.

Property ownership changes, 2003. In December 2003, Caterpillar announced the sale and leaseback of the Joliet plant property to CenterPoint Properties (“CenterPoint”) of Oakbrook, Illinois (Corfman, 2003). Under the terms of the sale, Caterpillar sold the entire site to CenterPoint Properties and then leased back one building and approximately half of the land under a fifteen-year lease term. There was speculation at that time that the lease would provide Caterpillar the ability to completely exit the Joliet plant at a future point (“Caterpillar may sell,” 2003).

World economy heats up, 2008-2010. Several years after the downsizing of the Joliet plant through the sale-leaseback, demand in key, global Caterpillar markets grew unexpectedly. The increase in global demand for mining product, drove additional investment and capacity into the Joliet plant:

“Caterpillar announced today a multi-year capacity expansion plan to position key factories in Illinois and other areas. In support of the proposed expansion, the company will invest more than \$1 billion from 2008 through 2010 in five existing facilities in Illinois (East Peoria, Joliet, Decatur, Aurora and Mossville),”
(Zubko, 2008.).

Union work stoppage, 2012. Soon after the capacity expansion in 2012, the economy slowed in critical Caterpillar markets. At the same time, the IAM initiated a work stoppage for leverage in the contract agreement being negotiated. As the market had peaked and there was excess production capacity, the four-month work stoppage ended poorly for the IAM and the union-represented employees returned to work (Mertens, 2012). With the new 2012 labor agreement between Caterpillar and the IAM, workers accepted a six-year agreement that included a freeze in wages and pensions, as well as a shift to a 401K plan for the union-represented employees and removed the prohibition on a full plant closure that had previously been in place. The 2012 settlement was viewed as a painful setback by the IAM with increases in healthcare contributions and the implementation of a two-tier wage structure (Franklin, 2012). These changes were particularly contentious with the union-represented employees as the company had announced records in profits per share, sales and revenue just as the strike began (Franklin, 2012).

Returning to work, the economy had declined significantly during the work stoppage, and there was general discontent at the terms in the new work agreement. The need for labor had peaked prior to the start of the work stoppage and many less senior union-represented employees were laid off after returning to work. Also, new employees were making significantly less than

senior employees doing similar work under the new tiered wage structure. The strains in working relationship were still present in various forms during the final closure period.

Partial closure, 2014-2015. In January 2015 (Okon, 2015), Caterpillar announced the contemplation of a partial closure of the Joliet plant. A “contemplation” notice was a formal requirement in the labor agreement requiring Caterpillar to provide a minimum of 60-days’ notice to the Union prior to any announcement of a partial or full plant closure. A contemplation notice was in addition to any Federal WARN Act requirements triggered by a reduction in work force levels.

In March 2015, Caterpillar formally announced the partial closure of the Joliet plant, with the valve and pump product lines moving to Mexico (Leone-Cross, 2015a). A second contemplation was announced in September 2015, impacting the remaining mining and quarry truck component product line (Leone-Cross, 2015b). Within the contemplation announcement, Caterpillar stated their intention to continue operating the plant as a logistics hub for twenty employees. In later announcements in 2015, Caterpillar communicated the intent to completely close the Joliet plant.

Closure transition, 2017-2019. In April 2017, the incumbent Joliet plant manager moved to a new role within Caterpillar, and the researcher assumed the role of plant manager, continuing in that role through lease end in June 2019. Due to a shift in market demand and a steady increase in production, there were several challenges from April 2017 to June 2019 including the need to hire additional union-represented employees; the continual adjustments in staffing as team members left Joliet due to the pending closure; and the pressure from internal customers as demand continued strong into early 2019.

The main impact within the factory from the previous layoffs and new hiring was a new, relatively inexperienced, union-represented sub-community of employees requiring additional training and coaching. By the summer of 2018, 15% of the workforce had less than one-year of experience. Ensuring these employees worked safely and effectively to the plant's required standards, required ongoing training, coaching and mentoring that had not been in the plant closure workplan. Fortunately, the leadership team and extended team were exceptional at onboarding.

In addition to the challenges of new union-represented employees on the factory floor, the ongoing exit of management employees was also a challenge. In the closure plan, there were financial incentives used on all payrolls to hold the necessary employees through critical transition points, while also committing to transition people as quickly as possible when opportunities appeared. The transition commitments were well-received and had an overall positive impact on engagement and job performance. The focus on job movement was to ensure the customer was protected; to transition people quickly; and to grow and stretch the remaining people for long-term development. During these moves, the plant team was expected to continue achieving their People, Quality, Velocity and Cost (PQVC) goal commitments.

Research Context

Research purpose and intended audience. The research study started from the researcher's desire to blend several aspects of practical experience into a research project in the interdisciplinary leadership Doctor of Education (Ed.D.) program at Governors State University. The intended audience of this research study were leaders working through a significant plant closure or downsizing event and desiring to help their team through the transition.

Identification of stakeholders. Specific individuals were not identified within the research study. To limit the scope of the study, neither interviews nor complex surveys were conducted. A goal of this research study was to drive an active dialogue, leveraging “critical colleagues” (Herr & Anderson, p. 73), during the review of materials, analysis, reflection and action phases. From within Caterpillar and from subject matter experts in the external community, twenty-five potential critical colleagues were identified to add leadership insight and perspective, and to reduce researcher bias. The critical colleagues that chose to participate in the reflection and feedback portion of the study were the only research participants. As only personal reflections and information readily available in the public domain were included in the research for the Caterpillar-specific portions of the research study, a senior Caterpillar Human Resource (HR) leader was engaged as a key research stakeholder to ensure no confidential or proprietary information was unintentionally shared.

Problem statement. The research study highlights the findings from prior studies, comparing and contrasting noticeable characteristics. Walter (2014) discussed the loss of social identity people experience in a closure and the associated loss in status. Sutton (1983) believed the loss of social status for leaders was due to the negative perceptions associated with a plant closure and “organizational death,” (p. 381). Additionally, ongoing challenges in the plant closure were retaining key skills and talent while recognizing those same people needed new roles outside of the plant at some point (Marks & Vansteenkiste, 2008). From the Joliet plant experience, collecting, analyzing and reflecting through the experiences of closing a long-established, large-scale manufacturing plant was valuable, with a variety of leadership theories and change management models proving highly relevant.

Research questions. The research question was how to categorize and analyze the leadership experiences encountered in closing a long-established, large-scale manufacturing plant? Three sub-questions were explored within the central research question:

- **Primary leader.** How closely did leadership practice align with research in a real-world plant closure? What were lessons learned? What were potential best practices?
- **Leadership team (followers).** What were lessons learned that could be discerned relative to the followers through evaluation of the various life cycle stages of a plant closing as compared to the research? What were potential best practices?
- **Extended team (followers of followers).** What were the organizational issues encountered during a prolonged closing? Were these encountered in the research and what did the research say regarding effective paths through the life cycle of closing? What were lessons learned? What were potential best practices?

Sources of qualitative information included non-confidential, personal reflections and other publicly available materials for the transition period. Historical information obtained through searches of available newspaper reports and other public sources were also included.

To better understand the dynamics of the Joliet plant closure, several areas of theory and practice were reviewed in the theoretical framework, starting with a broad understanding of plant closures and organizational death. From the baseline knowledge of organizational death, the research moved to better understanding how change management theory impacted the closure process. In the frameworks of the plant closure and change management, the need to build and sustain trust was identified within the literature (Kotter, 1996; Mayer, Davis, & Schoorman, 1995; Potts & LaMarsh, 2004; Schein & Schein, 2019; Schoorman, Davis, & Mayer, 2007).

Trust theory and practice formed a core segment of the next part of the literature framework. In reviewing the framework behind building and sustaining trust, the critical role of leader and follower emerged (Brown, Treviño, & Harrison, 2005; Kellerman, 2008; Kelley, 1992; Northouse, 2011;). The relevant theories behind leadership and followership formed the final segment of the theoretical framework.

Chapter 2 - Literature Review

The literature review was structured around the theory and practices concerning four areas: organizations in decline and death; structured change management; building and sustaining trust; and the role of leaders and followers in times of significant change. The four areas provided the needed context for the closure study. In general, plant closures are a poor experience than can be improved upon but cannot be viewed in terms of a positive experience (Browning & Heinesen, 2011; Manheim, Moore, Grunberg, & Greenberg, 2003). Ultimately, the research study leveraged how people reacted in this specific plant closure and provided tangible steps on how to more positively influence a future closure.

The literature review starts with the foundation of plant closures and the structure of what happens and why. This portion of the literature review draws from the process of organizational death (Sutton, 1983, 1987); the building of common purpose and tragedy at a team level (Bell & Taylor, 2011); the metaphor of organizational death as murder, palliative death, and sacrificial killing (Arman, 2014) also occurs; and why the “soft hands” approach was highly recommended for success (Freeman, 2009). The literature review then looks at the change management theories and practice of Cameron and Quinn (2011); Kotter (1996); Potts and LaMarsh (2004); and Schein (2002). Plant closure research and the change management research align strongly with the need to build and sustain trust, and the literature framework looks at trust theory from the works of Mayer et al. (1995) and Schoorman et al. (2007) for the relevant insights needed. Lastly, as leaders and followers are key agents in change, the literature framework looks at three leadership theories—transactional, transformational, and ethical; and concludes with the theories of followership from Kellerman (2008) and Kelley (1992).

Organizational Death Framework

In developing a theoretical framework for this research study, several core theories were reviewed and evaluated in the interaction with the plant closure. The review of the literature further looked at the theories and practice related to the full organization experiencing a plant closure; the impact on followers during times of stressful, negative changes; and the effectiveness of various leadership styles associated with personal resilience, leadership and hope relative to the primary leader.

Aspects of organizational death. Plant closures are challenging for those directly impacted by the closure, with closing being likened to losing a loved one or being in a contentious divorce (Sutton, 1987). Sutton (1983) specifically uses the term “organizational death” (p. 392) to reflect the deep loss experienced by employees and other stakeholders when an organization ends. Bell and Taylor (2011) extend organizational death to include many changes in the business including business failures, mergers and acquisitions, downsizing, and restructuring. Similarly, Sutton (1987) views plant closures and company bankruptcies as other forms of organizational deaths. Walter (2014) believes the use of “organizational death” avoids the simplistic euphemisms used by executive leadership and more accurately summarizes the loss and suffering experienced by those involved (Bell, Tienari, & Hansson, 2014).

Bell et al. (2014) cautioned to not lose the work-related meaning and shared suffering in structuring organizational death by overemphasizing individual impact. Similarly, Bell and Taylor explored the “exaggeration of individual vulnerability” (2011, p. 31) in the individual-focused research, believing there was significant value in understanding the impact at the organizational level. Häsänen (2010) found value in Sutton’s research, but Häsänen was also clear qualitative research still lagged the inductive approach used by Sutton (1983, 1987).

Overall, a plant closure impacts individuals, but in this study, the research focuses on primary leader, the leadership team and extended team and not specific individuals.

Sutton (1987) calls out two distinct attributes of organizational deaths. First, the end of the organizational is “unambiguous” (p. 543). There is a clear end point to the organization that all employees can agree and point. The organization is defunct. Second, “the dismantling of the organization” (p. 543) is accomplished by those who operated the plant prior to the final closure declaration. The process of a plant closure may have external assistance, but a significant amount of the work is completed by those individuals within the organization.

Researchers associate organizational death with Elisabeth Kübler-Ross’ work on death and dying (1969), specifically the five stages of grief— denial, anger, bargaining, depression and acceptance with some research support (Bell & Taylor, 2011; Marks & Vansteenkiste, 2008; Reedy & Learmonth, 2011). Using a similar structure of organizational death to human grief, Sutton (1983) describes the six phases of organizational death (see Figure 3):

- ***Preventing the organization’s death.*** Many employees are not aware of this activity going on, and in almost all cases of organizational death, the cause of death was tied to financial outcomes. Rumors begin in this period due to a lack of information, and with some perception of the organization underperforming or being at-risk.
- ***Announcing the future, formal end.*** There is a formal, public announcement the plant will close on a specific future date. Rumors continue to grow through this period and may grow aggressively in the absence of open communication.
- ***Disbanding.*** Disbanding (Sutton, 1983, p. 386), the process of removing people and other assets from the organization, begins. The removal of physical assets from the plant often removes any open doubt that the plant will stay open. As stated by one of

Sutton's study participants: "as the furniture went, hope went" (1987, p. 554). The process of disbanding also requires building awareness with customers a future support change is coming. Disbanding is a time-limited stage in the process and ends with the closure.

- ***Reconnecting.*** Reconnecting (Sutton, 1987, p. 555), the process by which the people and assets are aligned to other sites and social systems, begins closely with disbanding. The people alignment occurs due to new jobs within the organization or new roles outside the organization, such as retirement or returning to college. Aligning customers in this stage requires getting the customers to move to the future sources of production and support. The more effective an organization is at reconnecting their employees and transitioning resources, the more effective the employees will be at moving through disbanding.
- ***Ending with a formal death notice.*** People need a definitive closure point. With an official "death notice," employees, customers and suppliers can end the disbanding phase and move fully to the reconnecting phase. The transition through final closure (death) can be aided through structured ending activities and ceremonies like a funeral or "wake" (Sutton, 1987, p. 555). At the end of organizational death, the plant is closed, the assets have been processed and the people have transitioned. Disbanding is complete, but reconnecting may still occur as people move to various, new opportunities.

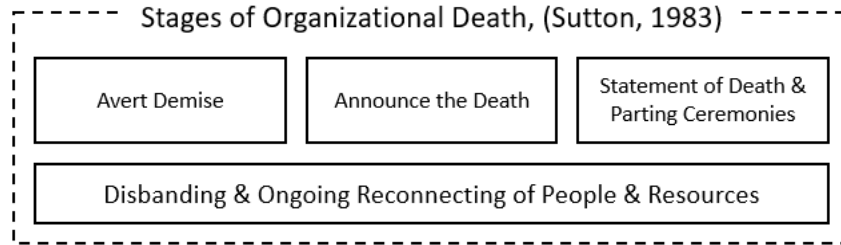


Figure 3. Diagram of the stages of organizational death. Adapted from “Managing Organizational Death” by R.I. Sutton (1983). *Human Resource Management*, 22(4), 391-412. Copyright 1984 by John Wiley & Sons, Inc.

Commonly held beliefs about plant closures. Sutton (1983) provided the most pragmatic working structure and model to describe how the Joliet plant moved through the transition to closure. Sutton (1983) explored commonly held beliefs including views towards productivity and quality; the impact of potential sabotage and stealing; and other interpersonal areas. From the perspective of the Joliet plant, the commonly held beliefs were expressed in many views and opinions, reviewed later in the discussion chapter.

According to Sutton (1983), the commonly held beliefs are grouped into two subgroups—supported beliefs and unsupported beliefs. From Sutton (1983), three commonly held beliefs were supported in the eight organizations investigated:

- ***Best employees “jump ship.”*** The best employees left quickly except for the very committed and most loyal employees, or those employees given financial incentives.
- ***Rumors abound.*** Sutton (1987) divided the total time of organizational death into four periods, the time: just before the closure announcement; just after the announcement; between the announcement and closure; and just after closure. In all time periods, rumors increased with the absence of communication.
- ***Employees have trouble accepting that a closure will occur.*** According to Sutton (1983, 1987), the lack of acceptance may not be as irrational as it first appears. With the complexity of plant closure issues, some employees have been threatened with

closure over many years before the final closure announcement. In those cases, the employees often thought the “final” announcement was some form of leadership threat or leverage attempt.

Four commonly held beliefs were unsupported in the eight organizations investigated or were limited to specific organizations with ongoing issues:

- ***Productivity and quality suffer.*** Sutton (1983) could not determine why, but in these cases, productivity and quality improved. Wigblad, Lewer, and Hansson (2007) called this productivity improvement the “closedown effect.” According to Wigblad, Lewer, and Hansson (2007), the closedown effect may be due to the more vocal, dispassionate employees being gone; the significant amount of pride in the remaining employees to do a good job; or employees trying to impress future employers.
- ***Employee sabotage and theft increase.*** Sabotage and theft were found in only one research organization where significant structure and regulation had been removed.
- ***Anger toward management dominates.*** There was some general hostility towards the organization and the leadership of the organization, but the dominant emotions were fear and sorrow.
- ***Conflict increases.*** Increased conflict was only found within one research organization with a history of open conflict.

Closedown effect. Increased performance was found to be systemic in several research sites. Barker and Gump (1964) believed employees found increasing challenge from the broadening of responsibilities as individuals moved from disbanding to reconnecting in a school setting. The closedown effect occurred when “without any change to capital investment, a productivity increase is observed during the closedown period,” (Wigblad et al., 2007, p. 87).

Sutton believed the improvement in productivity was due to the skills needed for disbanding and reconnecting being “unprogrammed tasks” (1987, p. 561), tasks that were not readily found in a standard operating procedure or handbook. Unprogrammed tasks were often new to the individuals performing them, broadening skills in some cases and adding new skills in others. As a significant number of people were taking on new responsibilities, there was a “ripple effect of job challenge” (Sutton, 1987, p. 562). Additionally, as employees shifted to reconnecting, employees often focused on developing new skills to impress potential, future employers and to potentially improve their ability to get a job. Häsänen (2010) thought the improvement in performance was due to the internal shifting of individual goals from organizational requirements to longer term, self-motivated goals.

Change Management Framework

With the research on plant closures, the need to understand the research behind effective change management theories became apparent. With the Joliet plant closure, the application of change management methods was neither intentional nor systematic in the closing. Some application of change management methods were likely due to knowledge embedded in standard operating procedures and previous project leader training.

The Potts-LaMarsh model (2004) and Kotter model (1996). There are several well-known change management processes including the Potts-LaMarsh model (2004) and the Kotter model (1996). The Potts-LaMarsh model’s 5-stage process include identifying the change; defining the current state, future state, the delta state; and establishing the governance structure needed. Potts and LaMarsh (2004) then prepare for the change by identifying sponsors, change agents and targets through a risk and readiness analysis. The process then moves through

planning for the change by building a structure for resistance mitigation; implementing the change; and sustaining performance in structure, people, processes and culture.

Similarly, with the 8-stage model from Kotter (1996), it is critical to establish a sense of urgency; assemble a change management team (coalition); and create, communicate and act on a future vision. As the change is progressing forward, building on quick wins is needed for additional momentum to further accelerate the change and ultimately institutionalize the new approaches. For Potts and LaMarsh (2004) and Kotter (1996), it is important to identify the future end point of the change; build a team around the future point; and execute with a direct, focused effort on modifying the people, processes and structures to achieve the goal.

Schein psychological states model. Another widely used change model is from Edgar Schein (2002) concerning psychological states. There are similar aspects between the psychological states model and the Kotter (1996) model and the Potts-LaMarsh (2004) model. Relative to the Joliet plant closure, Schein's focus on changes of psychological state versus distinct stages of activity resonated better with the actual closure events, and the model became an additional part of the theoretical framework in the research study.

Schein's psychological state model (2002) was based on Kurt Lewin's (1947) work which envisioned people living in an ongoing "quasi-stationary equilibrium" between internal psychological drivers to change ("driving forces") and drivers to resist the change ("restraining forces") (Lewin, 1947; Schein & Schein, 2019, p. 98). Lewin was clear equilibrium was not stationary but more comparable to a "river which flows with a given velocity in a given direction during a certain time interval" (Lewin, 1947, p. 208). External forces reinforce the change ("tailwinds") or resist the change ("headwinds"). Life is the management of these opposing forces, often represented by a force field diagram (Lewin, 1947). Individuals are "always in a

state of tension around the many choices we can act on and the many benefits, obstacles, and risks we anticipate in taking actions.” (Schein & Schein, 2019, p. 98). In Schein’s model, there are three principles for effecting change:

- Individuals change when the driving forces exceed the restraining forces.
- Change is more effective when the restraining forces are reduced.
- Personal relationships are needed throughout the change process for the intervention to work effectively.

Successful change happens through a series of learning and unlearning actions that occur throughout the process (Schein & Schein, 2019). When viewed as a change in psychological state, the desire to change and to resist the change are both inevitable and predictable. Safety, trust and actively listening are key aspects needed of the leader to effectively drive change. Other change models discuss the need to anchor the process in the norms of behavior of the culture Kotter (1996). Potts and LaMarsh (2004) discuss the need to manage the “dip in the delta” (p. 57) as the new process takes hold while the old ways are transitioned. The management of a significant change must be focused and intentional for the change to be successful.

The need to change. Change management models define the need to change in some structural way. Kotter (1996) uses the need to leverage crisis to create a sense of urgency to drive the organization out of complacency. Potts and LaMarsh (2004) take a more clinical approach to quantifying what needs to change in the current state that facilitates the move to the future state. Schein and Schein (2019) use the clinical term, “disconfirmation” (p. 104), to describe what often drives significant changes in an organization. Disconfirmation is some new information that causes an individual to reconsider their current psychological balance and to shift out of their normal life balance towards change and away from resisting change.

Significant emotional events can create disconfirmation—a formal announcement of a plant closure in the case of this research.

Disconfirmation forces individuals to do something in response, triggering two forms of anxiety. These anxieties can appear concurrently or sequentially. The first anxiety is survival anxiety—"unless I change, something bad will happen to me," (Schein & Schein, p. 106). This anxiety is the primary motivator of change. To the individual survival anxiety is a distinct, felt threat. The second anxiety is learning anxiety—"if I do something, I may not be able to learn what is required and I might fail," (Schein, p. 106). Learning anxiety is a significant demotivator to change.

Anxieties, behaviors and fears. Survival anxiety and learning anxiety are not necessarily conscious, potentially triggering underlying fears and unwanted behaviors. In a time of considerable change, where the need to change is out of balance with the resistance to change, the underlying anxieties will manifest in some way. It is key for the leader to not overreact to the behaviors and to recognize the underlying anxieties. The challenge is to push through the debate of "if" unwanted behaviors are present and focus on "how" these behaviors are appearing and address the underlying behaviors. Unwanted behaviors are more than just typical human nature, and leaders need to understand why "people might legitimately resist what your change program will require them to do." (Schein & Schein, p. 106).

Based on Schein and Schein (2019), sensitivity to the fears people experience is required, and the driven behaviors need to be addressed as they occur. There are several fears specifically identified, driven by the two anxieties. These are the fear of: power or position; temporary incompetence; punishment for incompetence; and loss of group membership. Fear by itself tends

to inaction (resistance to change). When fear and anxiety combine, the unhealthy behaviors of denial, scapegoating, bargaining or engagement loss can result.

Methods of learning. In a structured change management process, the goal is not to focus on fear but to understand the change and to drive positive, lasting change for the organization and the individual. The purpose in managing the change is to help facilitate the transition from the current state to the future state for the people involved. Further, in a structured, organizational change, the individual learner is not being given choice on the end goal. The learner is being given choice on the means of achieving the end goal. Throughout the entire change, the leader must use open communication; active listening; humble inquiry; and open, trusting relationships to facilitate the change. Like, Potts and LaMarsh (2004) and Kotter (1996), Schein and Schein (2019) define several structural activities that can be done to support change and improve the likelihood of success. The activities include: having a clear, compelling vision; providing formal training on needed skills; involving the learner in the learning process; having an environment that lets learners make mistakes while applying the learning; plus other positive and aligned support structures (coaches, support groups, rewards and recognitions, metrics, etc.). The change management process map (Schein, 2002) is summarized below (see Figure 4).

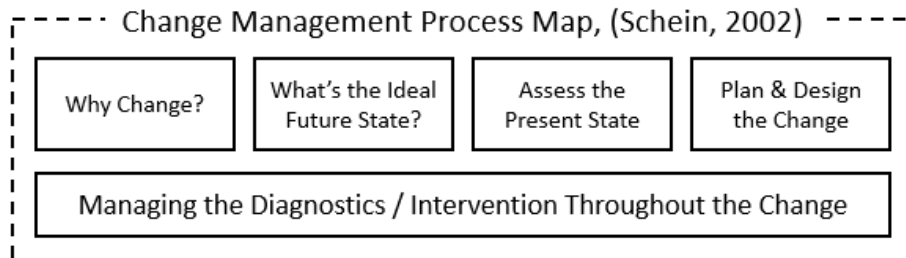


Figure 4. Diagram of the change management process map. Adapted from [The Corporate Culture Survival Guide, Third Edition](#) by E.H. Schein & P.A. Schein (2019).

Change managed poorly. A goal in the research study was to quantify tangible actions that minimized the negative impact on the extended team and which could be replicated in a

future plant closure. Negative impact takes many forms. Leana, Feldman and Tan (1998) quantified the impact on those experiencing a plant closure in terms of physical pain, emotional suffering and financial loss. Tang and Crofford (1999) believed an effective plant closure will save the parent corporation in reduced litigation and legal fees; improve morale through the transition by the employees demonstrating improved productivity and reduced damage; and the overall corporate brand maintaining a positive public image. Miller and Jennings (1995) believe the leadership of an organization in decline has a moral imperative to help the team transition to a better future state. Studies have pointed to increased depression, substance abuse, and other health-related issues across the years following a plant closure (Browning & Heinesen, 2011; Manheim et al., 2003). Other researchers found similar outcomes for the people directly impacted by downsizings and layoffs (Appelbaum, Close, & Klasa, 1999; Mishra & Mishra, 1994).

Trust Framework

Trust as the core. To the extended team, a plant closure will not be a positive experience, but through application of lessons learned and best practices, the impact on people can be lessened with help offered to transition (reconnect) individuals to new opportunities. In this research study, understanding what makes a plant closure a better experience for the people involved is valuable. Further, identifying the attributes that separate a plant closure done more effectively from a plant closure that ends poorly, will help impacted people transition more successfully.

Ideally, plant closures should be rare, but if there is a point in the lifecycle of a company where the end of the organization can longer be averted (Sutton, 1987), transitioning the people to a better future is a desirable outcome. With an organizational death, the ultimate end of the

organization is “unambiguous” (Sutton, 1987, p. 543). Everyone involved agrees the organization has ended. With a plant closing initiated, the change management process map from Schein (2002) improves the closure model developed by Sutton (1983, 1987). There is learning and unlearning by those in transition (disbanding and reconnecting). Those experiencing a closure do not necessarily have a choice relative to the end goal (closure) but providing choice in how the learner moves through the closure will help in achieving the transition goals.

An employee-centered plant closure will not work without trust as the core interaction between the leadership team and extended team throughout the change management process (Kotter, 1996; Potts & LaMarsh, 2004). According to Mayer et al. (1995), the definition of trust “is the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party (p. 712).” For the leader, the adage, “trust takes years to build, seconds to break and forever to repair” (Anderson, 2014, para. 3) is very true in the relationship of leader to followers.

Trust is dynamic over time. Trust emerges through the repeated exchange of benefits between two individuals in the context of a larger community (Whitener, Brodt, Korsgaard, & Werner, 1998). Trust grows through the regular discharge of obligations and through gradual expansion of exchanges over time between the individuals within the larger community. Trust diminishes when there is a perceived imbalance between the obligation and exchange. When trust diminishes through a misstep or imbalance, trust can be repaired but this requires significant investment and focus (Mayer et al., 1995).

Working model of trust. In the context of the closure, the pressure for greater efficiency and performance reinforced the need to understand follower performance. Follower performance is typically classified into in-role behavior (or task performance) and extra-role behavior (or contextual performance; Van Dyne & LePine, 1998). Task performance is "a function of knowledge, skills, abilities and motivation directed at role-prescribed behavior, such as formal job responsibilities" (Ang et al., 2007, p. 342). Extra-role behavior is positive and discretionary, not rewarded by formal reward systems nor punished when the job incumbent does not exhibit this type of behavior (Van Dyne & LePine, 1998). Extra-role behavior supports task performance by improving a social and psychological work environment through helping co-workers, speaking out to stop unethical behavior, or making innovative suggestions for change (Van Dyne & LePine, 1998).

Several concepts in the model by Mayer et al. (1995) need deeper discussion. Trust is a "willingness to be vulnerable," (p. 724). The receiver of the trust (the "trustor") must have the option to be vulnerable. Take away the option and the receiver can be coerced or forced, but this is not trust. In being vulnerable, there is an implicit risk for the trustor that the leader may not do what they say or do what is implied. If the leader does not follow through, there is a loss to the follower (trustor). In vulnerability, there is implicit risk. To be clear, trust is not necessarily the taking of risk. Trust is the willingness to take risk. Schoorman et al. (2007) further differentiate trust and cooperation. One person may cooperate with another person because of a lack of perceived choice. This cooperation can appear as one person trusting the other, but it is a form of coercion, not trust.

Trustworthiness. To improve the perception of trustworthiness, three factors can be influenced by the leader: ability, benevolence and integrity. Ability is the skills, competencies

and characteristics that allow a leader (trustee) to influence a follower (trustor). Relative to trustworthiness, abilities are in a specific area. Due to the leader's abilities or lack of abilities, it is possible for a follower to have trust for a leader in one ability area but not necessarily in another area. For example, a follower may trust a leader's business sense but not trust their commitment to the team. Benevolence is the extent the follower believes the leader will act in ways beneficial to the follower. There is an implied connection between leader and follower relative to benevolence. Integrity aligns to the perception of adherence and acceptability of principles to the follower.

McFall (1987) discussed personal integrity versus moral integrity. A leader may have high consistency in following personal principles but if those principles do not align with what is important to and seen by the follower, the leader will have high personal integrity but may have low moral integrity as perceived by the follower. For example, a leader may have exceptional financial honesty with great business acumen. In a plant closure, that leader may not be viewed as having high moral integrity by the followers because financial honesty is not of immediate importance to the followers. The followers would need to see other examples of integrity from the leader for trust to build. In another example, the same leader has high personal integrity in dealing with people, being known as someone who will "always give you the benefit of the doubt" in employee disagreements. As "giving the benefit of the doubt" is important to the followers, the leader would have moral integrity.

Discerning between personal integrity and moral integrity is important for a leader. Leaders often only understand integrity within the context of personal integrity—the consistency the leader has in demonstrating personal principles in action. The leader would believe trust would grow and sustain with their followers because of the leader's strong, demonstrated

personal integrity. If the leader's personal principles do not align with what is important to the followers, moral integrity will not be present, and trust will not grow and sustain with the followers. For trust to grow with the followers, moral integrity needs to be present, and aligned with what is important to the followers.

Propensity to trust. The leader must recognize trust is not only built from their personal ability, benevolence and integrity but also from where the community of followers is starting (Mayer et al., 1995). The follower's propensity to trust will be lowered in a closure experience. Many researchers found positive leadership behavior facilitates the development of trust in a leader (Dirks & Ferrin, 2002; Engelbrecht, Heine, & Mahembe, 2015; Ng & Feldman, 2015). Dirks and Ferrin (2002), provided a meta-analysis that identified transformational leadership and participative decision making as antecedents of trust in a leader. Additionally, the previous relationship with the leader will matter but is only a starting point. The leader must be consistent and intentional over time, and the leader needs to be particularly careful on integrity—followers need to know aspects of the leader's integrity have some relevance to them. For example, the leader's integrity and commitment to the corporation's values may not be of enough value for the followers to associate the leader with moral integrity.

If the follower perceives the leader as trustworthy, the outcome for the follower is risk taking in the relationship (Mayer et al., 1995). The follower believes they can trust the leader, so the follower takes the risk and becomes vulnerable in their willingness to trust. If the leader is consistent between stated action and response, the follower's perception of the leader's ability to be trustworthy increases. Over time, the follower's perceptions of the ability, benevolence, and integrity of the leader increases and the follower's propensity to trust and take risk will increase. Ability, benevolence, integrity and trust must be considered across a time horizon. These

attributes will vary over time between the followers and the leader, and within each follower.

The complete aspects of the Mayer et al. integrative trust model is represented in Figure 5.

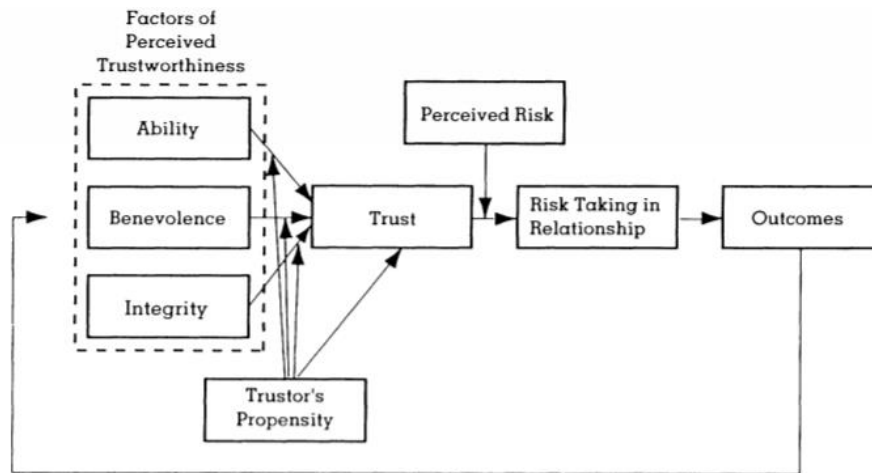


Figure 5. Diagram of the integrative model of trust. Adapted from “An Integrative Model of Organizational Trust” by R.C. Mayer, J.H. Davis, and F.D. Schoorman, 1995, *Academy of Management Review*, 20(3), p. 715. Copyright 1995 by the Academy of Management Review.

Leadership and Followership

Without trust, the change initiative will likely fail. Even in a high-trust environment, the style and character of the leader will directly interact with styles and character of the leadership team and the extended team. The interaction between leader and follower is bi-directional. The primary leader influences the leadership team and the extended team through direct actions and communications. In return, the feedback and response of the extended team influences the leadership team and primary leader. The interactions between leader and followers are modeled in Figure 6.

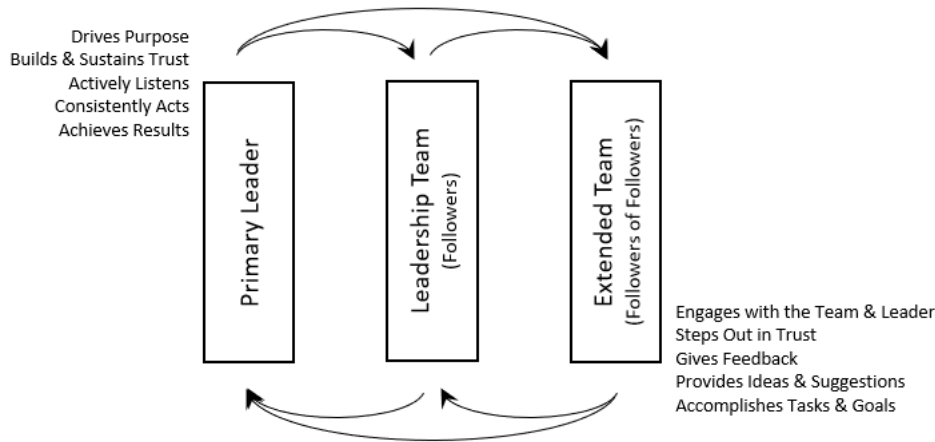


Figure 6. Diagram of the leader-follower interaction process.

The primary leader in the interaction with the direct followers (leadership team) ideally drives vision and purpose; builds and sustains trust; and engages the team by actively listening; humbly inquiring; and consistently acting (Schein & Schein, 2019). These behaviors are then cascaded from the leadership team to the extended team (the followers of the followers). With a strong and sustained environment of trust, and if the actions of the leaders appear trustworthy, the followers will engage with the team; step out in trust; communicate openly by providing feedback, ideas and suggestions; and the followers will begin to learn and unlearn the necessary skills to make an effective transition to closure.

Even in an environment of trust, some leadership styles will be more successful than others. Quoting Schein and Schein (2019, p. 112):

“Perhaps a very charismatic leader can convince learners at this level, but the practical reality is that changes in beliefs and stable new behavioral norms only come about from the personal involvement of the learners when they can safely admit their discomfort and fears, sources of resistance, and trust what they are being told by the change leaders. Eliciting information from the learners and really hearing what they are saying becomes a key skill of change leadership.”

In this section of the research study, the leadership theories and practices of transactional leadership, transformational leadership and ethical leadership were reviewed against the research. All three leadership styles would be expected in various forms within the members of a leadership team of a significant plant closure.

Transactional leadership theory. In transactional leadership theory, the emphasis by the leader is in accomplishing a specific task (Bass, 2010). The leader evaluates goals and tasks that need to get done and assigns tasks to individuals to ensure the goal is achieved. When the individual accomplishes the task, the transaction is complete and the individual is either rewarded or penalized (Bass, 2010). Transactional rewards can include recognition, promotion, compensation or other incentive. The penalties can include a financial penalty, criticism, reprimand, loss of status or employment loss.

Transactional leadership is simple in approach. Transactional leadership is relatively simple to implement and simple to manage. Complex projects are broken down into progressively simpler tasks. Tasks of manageable size are assigned as needed to individuals. The manager either passively or actively follows up by exception (Bass, 2010). In the passive form, the manager looks for specific outcomes that are missing expectations, then acts. In the active form, the manager sets standards and procedures, and acts when the task varies from the standard. Transactional theory does not typically drive decision making and transactional theory functions at a consistent, predictable level until disrupted (Bass, 2010).

Transactional leadership is a traditional management style. Transactional leadership can be a very effective leadership style in an environment that is established, where the employees accept the method, innovation is not required, and little change is likely (Bass, 2010). Transactional leadership is not an effective leadership style when the approach is uncertain,

options need to be evaluated and a shared leadership style is needed. With transactional leadership, the potential for leaders to be surprised or blind-sided by issues is significant. The effectiveness of the style is directly linked to the manager's ability to control the incentive and penalty, and whether the employee values the specific incentive or fears the specific penalty (Bass, 2010). The effectiveness of the transaction will depend on the quality of the outcome required, the commitment of the team member, and the amount of time available (Vroom & Jago, 2010). By default, the transactional style is leader-driven and reactive. Feedback is slow, more directly related to the transaction than the outcome of the transaction, and strongly dependent on the leader. Team members may not act to make improvements or corrections when needed without direction from the leader or further reward-penalty.

Transformational leadership. There are many leadership theories that drive an organization beyond the simple transactional approach – transformational, charismatic, authentic, values-based, servant leadership, etc. Of these leadership theories, one of the more commonly known and practiced is transformational leadership theory (Bass, 2010). Transformational leaders have the potential for greatness because the leader has the potential to broaden the thinking of the team members beyond the simple transaction to an alignment of mission and purpose (Bass, 2010). The strong leadership demonstrated within transformational leadership is the result of dedication, strong self-awareness and intent (Boyatzis & McKee, 2005). According to Bass (2010), the transformational leader has aspects of charisma, inspiration, intellectual drive, and the ability to engage the team at an individual, resonate level. Transformational leaders will evaluate alternative ways of accomplishing work through the team and will invest in developing the needed processes and capabilities to do so (Blake & Mouton, 2010).

Moving beyond transactions. Additionally, transformational leadership is needed because organizations “get stuck in a cycle of sacrifice and dissonance” (Boyatzis & McKee, 2005, p. 47). This is due to organizations valuing short-term results over better methods until the results are no longer achieved or when a larger problem occurs. Also, managers and leaders are often not self-aware enough to understand the limiting environments created, and their personal need for change. Environments characterized by fear, control, and distrust will have limited ability to perform and generate long-term value. In high-stress environments, fear, distrust and overt control, can limit the performance of the team and the team’s ability to deliver the needed results. As the transformational leader is high in self-awareness, the leader will improve the work environment by focusing on mutual respect and trust (Kouzes & Posner, 2010).

If the environment is stable with no significant changes, there is little to differentiate the transactional from the transformation styles of leadership. In a time of significant change where the outcomes are significant and the direction forward is unknown, the style of leadership needs to shift away from a transactional approach, and a transformational approach may be acceptable.

Danger of the toxic triangle. Without an ethical foundation, the challenge for the transformational leader is the potential shift to a more toxic style (Lipman-Blumen, 2005). As described by Padilla, Hogan, and Kaiser (2007), there is a toxic triangle created when the following are present: a destructive leader, vulnerable followers, and a susceptible environment. With the transformational leader, there is the presence of charisma and potential narcissism. Combined with a high pressure, divisive environment and limited accountability, toxic leadership can emerge and grow quickly (Lipman-Bluman, 2005; Padilla et al., 2007).

4 I’s of transformational leadership. As discussed by Bass and Avolio (1994), transformational leaders can lead past the toxic triangle and achieve superior results for the

organization through one or more unique elements known as the 4 I's of transformational leadership: idealized influence; inspirational motivation; intellectual stimulation; and individualized consideration.

Idealized influence. With idealized influence, the leader behaves in such a way as to become a role model to followers. The leader is admired, respected, and trusted for their character. With idealized influence, the leader considers the needs of others before themselves, is reliable in action and consistent in doing the right thing. When this element is present, the leader willingly shares risk with the followers, using power only when necessary and maintaining high personal standards. According to Bass and Riggio (2006), the four elements of transformational leadership can be demonstrated in a participative style or directive style. When idealized influence is used in a participative way, the leader emphasizes the team can win through the support of the individual team members. In the directive style, the followers are asked to trust and follow the leader to achieve what has been set out for the team to accomplish.

Inspirational motivation. With inspirational motivation, the leader behaves in ways that motivate and inspire others by providing purpose, meaning and challenge. The inspirational motivation of the transformational leader drives a positive team spirit as well as enthusiasm and optimism for what needs to be done. The transformational leader demonstrating inspirational motivation gets followers involved in embracing a positive future state by setting clear expectations, demonstrating commitment to the goals and shared vision of the organization, and maintaining high standards for the team. According to Bass and Riggio (2006), the transformational leader demonstrating a participative style with inspirational motivation would encourage the followers to work together for the good of the team. In a directive style, the leader

would challenge the followers to acknowledge they were getting better every day as they pursued the team's inspirational goals while the leader drove the team to higher performance standards.

Intellectual stimulation. With intellectual stimulation, the leader motivates the followers to be innovative and creative. The transformational leader demonstrating intellectual stimulation will encourage followers to question basic assumptions, reframe problems and approach old problems in new ways. With the element of intellectual stimulation, there is no public criticism with creativity actively encouraged. New ideas and creative solutions are actively solicited from followers and followers are encouraged to try new approaches. According to Bass and Riggio (2006), the transformational leader demonstrating a participative style with intellectual stimulation, the transformational leader would encourage everyone to look critically at the assumptions, challenging areas that did not make sense and offering new perspectives and insights, even if they were different than the leader's. A more directive transformational leader would directly challenge the followers to examine their assumptions, to reexamine problems in new ways, and to challenge the perspectives of the leader.

Individualized consideration. With individualized consideration, the transformational leader understands and adapts to each follower's needs for achievement and growth. The transformational leader demonstrating individual consideration acts as mentor and coach, focusing on developing the individual followers to higher levels of potential. The transformational leader is an effective listener, accepting and encouraging differences in followers. Individualized consideration encourages the transformational leader to delegate tasks to the followers in order to further grow and develop their capabilities. A two-way exchange is encouraged between leader and follower, with the transformational leader using different styles for different followers in order to draw out the best in the follower. According to Bass and Riggio (2006), the

transformational leader demonstrating a participative style with individualized consideration would ask the team what actions could be taken to draw out and leverage the unique capabilities of the individual followers. In the more directive style, the transformational leader would articulate the value of each individual and their unique capabilities, stating clearly what support the leader would provide to support the individual follower's efforts to develop.

Ethical leadership. Building on the 4 I's of transformational leadership, ethical leadership style allows the leader to move further away from the toxic triangle and forward in a way beneficial to the leader, team and other stakeholders. Ethical leadership is like authentic leadership and transformational leadership, but with a deeper focus on the mission and purpose for the organization. With authentic leader, the emphasis is on developing the leadership style of the leader consistent with their personality and character (George, 2010). The authentic leader is true to themselves, but not necessarily true to the deeper mission of the organization. The transformational leadership focuses on making the necessary changes in people and process to achieve what is required, but the transformational leader is also not necessarily aligned to the deeper mission or purpose.

The emphasis within ethical leadership theory is on achieving the ends with the right means. Ethical leadership is defined as "a process in which a good person acts in the right ways to accomplish worthy goals" (Northouse, 2011, p. 244). The ethical leader is aligned and congruent between character and behavior (Brown et al., 2005), and between word and action (Kirkpatrick & Locke, 2010). The ethical leader will lead the needed transformation required, but the ethical leader will also communicate to the team their values, principles and purpose. The ethical leader is committed to adhering to ethical behavior as well as living this behavior out

in action. In a crisis, the ethical leader acts for the common good, moving past personal agendas and self-seeking.

Principles of ethical leadership. According to Northouse (2011), there are five principles of ethical leadership: respect for others; serve others; show justice; be authentic; and build community.

- *Respect others:* the perspectives, values and engagement of the individual matters in the decision making. The focus of the ethical leader is listening, understanding and valuing the team member.
- *Serve others:* The ethical leader tries to serve the needs of the individual team members in balance with the needs of the team and overall organization. The emphasis in service is on the follower and not the leader.
- *Show justice:* The ethical leader makes decision based on distributive fairness (equity, equality, and need); procedural fairness (all can speak and appeal while guarding against bias); and information fairness (decisions are explained, feedback timely, and the message tailored to the individual need) (Northouse, 2011).
- *Be authentic:* The ethical leader balances candor with care, taking responsibilities for their actions, words and commitments.
- *Build community:* The ethical leader tries to integrate the interests of the extended team to build a common goal for the common good.

Leadership styles in a plant closing. A transactional leadership style can be successful if the plant closure is straight-forward and highly prescriptive. The addition of a more experienced coach will also assist the leader. If the plant closure activities are not well defined, there will be a need to move past the transaction leadership style and move to a stronger change management

style like transformational leadership. A transformational leadership is an ideal style when the leader will need to build and sustain new processes and structures to accomplish the closure goal

The challenge for the transformational leader is avoiding the toxic triangle and shifting away from a toxic leadership style due to high pressure, divisiveness and limited accountability. If proper, external accountability is established, the transformational leader can be very successful and will drive significant improvement in processes and structure. Without the proper support network and accountability structure, the transformational leader will be at risk to becoming toxic and dysfunctional over time. A large-scale closure is fundamentally high pressure with significant potential for divisiveness across payrolls. The structuring of accountability is dependent on the leadership above the plant site and will significantly influence the success of a transformational leader. The challenge faced by leaders in a plant closure are loss of social identity and the associated loss in status (Walter, 2014). More senior leaders may dissociate from the ongoing operation of the plant due to the perceived impact on their reputations.

The advantage the ethical leader has to the transformational leader is in the ethical leader's strong sense of mission and purpose. The moral "true north compass" present in the ethical leader allows the leader to self-manage effectively in alignment with the organization's overall mission and purpose with little formal accountability. The ethical leader also has more ability to manage through the potential negative perceptions of their leadership abilities due to the closure than other leadership styles. Additionally, the ethical leader is much more likely to naturally balance the needs of the extended community with the overall mission and purpose of the organization (Northouse, 2011).

Followership. In a developed organization, individuals have multiple roles, and within the context of the Joliet plant closure, the leadership team members were both followers and leaders, each with their own distinct style and strengths. Without the primary leader setting the direction, the other leaders and team members would not have had as strong a likelihood for success (Cameron, Freeman, & Mishra, 1991). This is not to downplay the need for a supportive leadership team and a commitment from the extended team to perform well together. Effective leaders and followers will impact the ability of the team to have more positive outcomes.

Within the context of the other leaders and team members, understanding followership theory and how followership is demonstrated by individual team members during a plant closing is important. As discussed by Engelbrecht et al. (2015), the direct supervisor had equal or great effect on the follower on performance, intent to quit, and job satisfaction than the organizational leader. Similarly, Ng and Feldman (2015) found the ethical direct supervisor had more influence on the followers than the climate established by the overall organizational leader. Additionally, without the commitment and engagement of the wider extended team, the overall work cannot be accomplished. For superior performance, the primary leader, leadership team, and extended team must be working for a common purpose and goal. The alignment of employee to leader to organization is followership.

Kelley (1992) is attributed with developing the concept of followership as an integral part of leadership theory. In followership, followers are an active part of any organization or team, bringing with them intelligence, energy, and self-reliance. Followers do not follow because they lack skills, motivation, and talent. The “ideal” followership model has the leader in partnership with actively engaged followers (Kelly, 1992). In a true leader-follower partnership, information

is shared openly and freely; partners co-create the vision and mission; and the partners share in the risks and rewards of the organization (Kelly, 1992).

As discussed by Crossman and Crossman (2011), the challenge with followership is many leaders assume what followership means but never establish a solid, workable definition. As defined by Kelly (1992), followership is a powerful role, comprised of knowledgeable, talented, and engaged individuals. In this context, followership is not about cultivating or growing followers, but about being willing to partner with the followers already within the organization. According to Kellerman (2008), followership implies “a relationship (rank) between subordinates and superiors, and a response (behavior), of the former to the latter” (p. xx). In practice, Carsten, Uhl-bien, West, Patera, and McGregor (2010) found that followership was a social construct. Followers demonstrated behaviors the followers felt their leader wanted demonstrated. If the leader wanted more passivity, the follower became more passive. If the leader wanted more aggressiveness, the followers became more aggressive (Carsten et al., 2010). The challenge to leaders is to understand the followership model, and actively embrace the followers within the organization.

There is a negative side to followers (Carsten et al., 2010; Crossman & Crossman, 2011; Kelly, 1992). When not engaged or poorly engaged, followers can become passive or alienated (Kelly, 1992). In this state, the follower is not engaged with the mission of the organization nor the vision of the leader. To be successful, the leader must be willing to surrender traditional hierarchical power and establish an active working relationship with the followers. If the follower can be fully engaged, exemplary followers take on a selfless responsibility, assuming new and challenging roles within the organization.

The next sections of the study review the research methodology and the results of the feedback sessions with the critical colleagues. The leader-follower interaction process will be further explored in the conclusions immediately following the research results.

Chapter 3 - Research Methodology

Overview

Research structure. This research study was structured as an after-action review of the Caterpillar Joliet plant closure in June 2019. An action research approach was applied to the personal experiences, reflections and lessons learned of the primary researcher to draw insights from the closure experience of a long-established, large-scale manufacturing plant. Comparisons and contrasts of the closing experience to relevant research occurred at three levels: the primary leader, the leadership team, and the extended team. Critical colleagues were used to validate, develop and enhance the observations and conclusions, and to reduce researcher bias. The senior human resources executive with former responsibilities for the Joliet plant was used as a reviewer and subject matter expert to ensure no proprietary or confidential information was released. The research study added to the limited research available on organizational death and plant closures, functioning as a positive starting point for future research.

Research environment. The research environment was a 1.3 million square foot production plant for Caterpillar Inc. located in Joliet, Illinois. The plant had been in production from February 1951 through January 2019. The plant was one of the first Caterpillar production sites commissioned outside of Caterpillar's home base of Peoria, Illinois, functioning as a source for critical equipment for the United States' highway expansion program of the 1950s and 1960s. The plant was an International Association of Machinists and Aerospace Workers (IAM) union-represented plant that produced precision hydraulic components, used internally in Caterpillar engines and vehicles. At peak employment in the 1970s, over seven thousand individuals were employed, shipping product globally to Caterpillar assembly sites and parts depots. The plant

was closed due to cost-competitiveness issues in comparison to producing parts closer to end-use and in lower-cost regions (Okon, 2015).

Participants

Study information. The project study compared practice to theory in the case of the closure of the Caterpillar Joliet hydraulics plant. Using an action research approach, the experience and outcomes of the primary leader, leadership team (followers), and extended team (followers of followers) were evaluated through a process of review, analysis, reflection and action (improvement) planning based on publicly available information and personal reflection. For this research, the primary leader (plant manager) for the plant closure was the primary investigator (researcher).

As part of the action research method, critical colleagues were used for additional perspectives and to ensure a healthy cycle of discussion, observation, reflection and learning occurred. The critical colleagues were the only participants within the research. The desired outcome of the research study was a series of lessons learned that could be applied to leaders, followers and organizations experiencing a similar plant closing. As a research study, the desired outcome was to broaden the body of knowledge relative to leadership through a plant closures and to provide a hands-on example of action research applied in the for-profit segment of a traditional manufacturing company.

Study sites. The research was built around an action research method. The primary source of activity was through the review of public information, and the review and reflection of the principal investigator who was the primary leader of the plant during closure.

Two online surveys were used with the study participants (critical colleagues). One survey provided feedback on the research paper. The second survey provided feedback on the

online presentation of the research materials. The participants provided feedback to reduce researcher bias, to improve the overall quality of the research and to capture new insights and learning from the research.

Only after the consent form was completed and signed, did participants receive an emailed draft copy of the research study, two survey web links and a link for scheduling participation in the research presentation. The surveys were designed to examine the participants' reaction to the research, identifying areas for improvement and capture additional insights. Participation involved reading the research paper, attending the presentation and completing the two online surveys within 7-10 days of receiving the research paper by email.

- The age range of participants was within the range of 25-75 years of age.
- Total study enrollment:
 - 5 participants were the minimum number required.
 - 25 potential participants were invited to take part in the research.
 - 16 participants completed the required consent form.

Inclusion criteria. Participants were members of one of the three subgroups:

- the core leadership team at the Caterpillar Joliet plant at some point during the closure of the plant (17 candidates);

OR

- the primary leader from the United Way of Will County, Will County Center for Economic Development, and Workforce Center for Will County, with first-hand knowledge during the Caterpillar Joliet plant closing period (4 candidates);

OR

- other Caterpillar plant managers from the Aurora, Decatur, East Peoria (KK) or South Milwaukee plants with personal, relevant experience from a plant closure or large-scale layoff (a WARN act was triggered) other than from the Caterpillar Joliet plant (4 candidates).

Exclusion criteria. Participants were required to be from one of the three subgroups.

If a core member of the Caterpillar Joliet leadership team, the participant needed to answer "yes" to:

At some point during the Caterpillar Joliet plant closure period, I had direct influence on the actions taken relative to the transition plans of the Caterpillar Joliet plant within the time frame of January 2015 to June 2019. YES or NO.

If a primary leader from the United Way of Will County, Will County Center for Economic Development, or Workforce Center for Will County, the participant needed to answer "yes" to:

At some point during the Caterpillar Joliet plant closure period, I had first-hand knowledge of the Caterpillar Joliet plant closing through a site visit, attending a status briefing or interacting with people in the performance of my leadership role within the time frame of January 2015 to June 2019. YES or NO.

If a Caterpillar plant manager from the Aurora, Decatur, East Peoria (KK) or South Milwaukee plants, the participant needed to answer "yes" to:

I have first-hand, relevant experience from a factory closure or large-scale layoff (a WARN act was triggered) other than from the Caterpillar Joliet plant within the time frame of January 2015 to June 2019. YES or NO.

Recruitment of participants. Participants were recruited using "rational sampling." An email was sent to a predetermined list of people within the identified subgroups. Participation was limited to those identified on the study participant list.

Design

Study background and rationale. The research study started from a desire to blend several aspects of practical experience into a high-impact final project in fulfillment of the doctoral requirements within Governor State University's (GSU) Interdisciplinary Leadership (INLD) program within the College of Education. Little direct research was found on the leadership impact of plant closures. Some research indicated that part of this gap was due to the stigma placed on leaders within a closure being thought of as having contributed to the closure. The intended audience of this research was anyone interested in applying effective leadership methods to an organization in decline and successfully transitioning people through the experience.

In April 2017, the researcher replaced the incumbent plant manager for the Caterpillar plant in Joliet, Illinois. The researcher's interest in leading the plant grew from experiences in the following roles: plant manager of the Joliet plant ten years earlier; plant manager just after launch of the Caterpillar forest products facility in LaGrange, Georgia; and teenager in a community experiencing a plant closure for a long-established, major employer ("Allis-Chalmers a shell," 1985). As the plant manager of the Joliet plant previously from 2008-2009, the researcher felt a personal commitment to the former team, and a desire to help the team through the closure transition.

There were many available resources for effectively starting or growing a business. Relative to ending a business or closing a factory, the available resources were few. The

available research indicates this may be due to the negative perceptions associated with a plant closure (Walter, 2014). This research project by collecting, analyzing and reflecting through the experiences of closing a long-established, large manufacturing plant contributed to the body of knowledge on leadership.

Study objectives. The objectives of the research were to:

- Collect, analyze and reflect through the experiences of closing a long-established, large-scale manufacturing plant.
- Determine and document the lessons learned from: leading an organization through a time of organizational decline; engaging followers during a plant; developing leadership resiliency; maintaining “true north” through the closure; and applying an ethical leadership-based approach to “finishing strong.”
- Identify lessons learned that were best practices for similar, future situations.

Research questions. The research questions sought to understand how to categorize and analyze the leadership experiences encountered in a large-scale plant closure. Three sub-questions were explored within the central research question:

- ***Primary leader.*** How closely did leadership practice align with research in a real-world plant closure? What were lessons learned? What were potential best practices?
- ***Leadership team (followers).*** What were lessons learned that could be discerned relative to the followers through evaluation of the various life cycle stages of a plant closing as compared to the research? What were potential best practices?
- ***Extended team (followers of followers).*** What were the organizational issues encountered during a prolonged closing? Were these encountered in the research and

what did the research say regarding effective paths through the life cycle of closing?

What were lessons learned? What were potential best practices?

Variables studied. The variables evaluated within the study were the actions taken during the time of the closure as measured against the theoretical framework. As this was an action research project, the research participants functioned as "critical colleagues" who reviewed the research and provided feedback to reduce researcher bias, to improve the overall quality of the research and to capture new insights and learning from the research. Additional sources of qualitative information included non-confidential personal notes and materials from the transition period to final closure. Interviews were not used to supplement or clarify existing information. Historical information was obtained through searches of available newspaper reports and other public sources.

Structure of the surveys. The survey used for the research paper and the survey used for the presentation were similar with the first three questions used to define unique survey identifiers and the remaining five questions to understand the reaction of the survey participant to the research. The survey identifiers were the same for the research paper and presentation with the intent of maintaining the anonymity of the survey participant while creating a unique identify that would allow the two independently completed surveys to be connected. The survey identifier questions were:

1. What are the last four digits of your phone number from when you were 12 years old?
2. What was your high school mascot?
3. What was the name of your first pet you owned?

Connecting the two surveys to the same participant permitted a comparison and analysis of potential indicators between the surveys. As the surveys were designed to capture the reaction

of the participants using an open-ended, quantitative format, the quantity (word count) and structure (depth of insight) of the responses was unknown to the researcher until the surveys were completed. The connected surveys also allowed for insights as to which participants did not complete the second survey and the potential influence a specific participant may have had in the first survey but not in the second survey.

The formal portion of the surveys were similar for the research paper survey and presentation survey, consisting of five questions, question numbers 4-8 within the survey. The questions within the survey were intentionally kept open-ended to allow the participants to react with minimal leading and bias from the researcher. The questions between the surveys were kept consistent to minimize variation in responses due the form of communication. The individual questions were very similar between the two surveys with only the form of communication (research paper vs. presentation) and the timing of the surveys differentiating the two surveys. For example, a comparison of the fourth question—the first question immediately following the survey identifier information—for the research paper survey and the presentation were:

Research paper

4. ***Overall material:*** Is the overall research paper clear? What is missing? What should be clarified? What should be excluded?

Presentation

4. ***Overall material:*** Is the overall research presentation clear? What is missing? What should be clarified? What should be excluded?

As discussed above, the only difference between the research paper survey and the presentation survey was the substitution of “research presentation” for “research paper” in the questions as presented in the online surveys. The two surveys were administered approximately two weeks apart with each survey having a unique internet address. The research paper survey was completed after the two-week review period by the participants. The presentation survey was completed an additional week later following one of the formal, online presentations.

Structure of the formal survey questions. The five questions within the formal portion of the surveys were intended to elicit an open-ended response from the survey respondents. The questions focused on clarifying the materials; improving the quality of the research; identifying additional lessons learned and best practices; and gathering additional, overall comments. The specific questions are shown below for the research paper survey but are also representative of the research presentation survey.

4. **Overall material:** Is the overall research paper clear? What is missing? What should be clarified? What should be excluded?
5. **Material quality:** What one thing would you do to improve the overall quality of the research paper?
6. **Identifying additional best practices:** Drawing from the research paper, what additional best practices can be identified and/or clarified?
7. **Identifying additional insights and learning:** Drawing from the research paper, what additional insights or learning can be identified and/or clarified?
8. **Additional comments:** What additional comments do you wish to share regarding the research paper?

The specific results for the individual questions and the aggregate survey results are discussed in the results chapter that follows.

Procedure

Informed consent procedures. Once IRB approval was obtained, the following procedure was used:

1. An email was sent by the principal investigator to the 25 potential candidates describing the research study and the candidates' opportunity to participate in the research study.
2. The consent form was included as an attachment.
3. Prior to the cutoff date for participation, if the candidate was interested in participating in the study and the candidate met the requirements for participation, the candidate printed out the consent form, signed and dated the form.
4. Fulfillment of the participation requirements by the candidate was presumed by the candidate receiving the email then signing and returning the consent form.
5. The participant took a picture or scanned the signed and dated consent form.
6. The scanned image or photograph was sent back to the principal investigator by email.
7. The principal investigator printed then signed and dated the consent forms.
8. Once all consent forms were signed and dated by the principal investigator, the principal investigator gave the completed consent forms to the faculty sponsor (Dr. Steve Wagner).
9. The faculty sponsor stored the completed consent forms in a locked cabinet at GSU in the faculty sponsor's office, G275. Per GSU Policy #53 on the protection of human research subjects, the data and paper feedback will be retained for at least five (5) years after the completion of the research and then destroyed.

10. Participation time in this study varied for the participants; however, estimated duration was 30-45 minutes to review the research study and an additional 30 minutes to complete the online survey. Participation in the research presentation was estimated to be 90 minutes with an additional 30 minutes to complete the second online survey.

Research procedures. The following procedure was used with the critical colleagues once informed consent forms were completed and returned:

1. Received an emailed draft copy of the research study, two survey web links and a link for scheduling participation in the draft research presentation.
2. Selected one of five presentation times to attend within fourteen calendar days of receiving the draft copy of the research by email.
3. Read the research report and completed the first survey within fourteen calendar days of receiving the draft copy of the research paper by email.
4. Attended the elected presentation time and completed the second survey within three calendar days of the presentation.
5. Received a copy of the final research paper and presentation within two days of the research requirements being fulfilled.

There was no compensation for participating in this study. The research participant could request a copy of the final research paper and presentation, even if they did not elect to participate in the study.

Benefits. The benefits of the study were to add to the body of knowledge on leadership in a plant closure. The current research literature was lacking in applied work on the impact of leadership on the primary leader, leadership team (followers) and extended team (followers of

followers) in a plant closure or significant organizational decline. With effective leverage of the participants within an action research framework, the research study was a solid foundation for future projects and organizational evaluations. Specifically, best practices for: leading an organization through a time of organizational decline; engaging followers during a plant closure or organizational end; developing leadership resiliency and maintaining “true north” through the closure transition; and applying an ethical leadership-based approach to “finishing strong.” Participants in the research directly contributed to the body of knowledge.

Risks. The risks of participating in this study were no greater than those experienced in day-to-day life. Specifically:

- Physical risks - not applicable.
- Psychological/emotional risks - not applicable.
- Privacy risks - not applicable.
- Legal risks - not applicable.
- Social risks - not applicable.
- Economic risks - not applicable.
- Group or community harms - not applicable.

Privacy and confidentiality. The participants only provided formal, written feedback through the online surveys. No personal information was gathered in the survey that could identify the participant, nor did the online survey record the IP address of the participant. All personal information that could identify the participant was removed or coded in the research data. Based on standard research practice, no one will be able to identify the participant from the information available.

Within the research paper and presentation, any reference to individuals that was not readily available in the public domain was removed or coded before final publication to ensure anonymity. During the presentation, there was no recording of the audio or visual. A working copy of the research paper and presentation as well as the final research paper and presentation were made available to a senior Caterpillar human resources executive, with authority to review the materials, to ensure no confidential or proprietary information was included in the research paper or presentation.

The data, feedback and analysis from the research was secured on a password-protected computer at GSU in Dr. Steve Wagner's office, G275, and will only be retained for the required retention period and then destroyed. There were no paper copies of the feedback or analysis created. No other copies of the data, feedback and analysis were stored after completion of the research study. Per GSU Policy #53 on the protection of human research subjects, the electronic data, analysis and results will be retained for at least five (5) years after the completion of the research and then destroyed.

Chapter 4 - Results

The analysis focused on the results of the two surveys conducted by the critical colleagues with the purpose of identifying improvements, gaps, and bias in the research study and presentation of the research material. The intent from the analysis was to improve the overall quality of the research. The survey approach was open-ended to intentionally avoid limiting the responses from the critical colleagues. The challenge with an open-ended survey data was the uncertainty on how to best analyze and then use the results. As the critical colleagues were valued co-workers, peers and community leaders, a secondary goal of the analysis and subsequent application of the results was to respond directly to all individual feedback.

Critical colleagues. The critical colleagues were selected from three communities: a recent core member from the Caterpillar Joliet leadership team; the primary leader from the United Way of Will County, Will County Center for Economic Development, or Workforce Center for Will County Caterpillar; or one of the plant manager from the Aurora, Decatur, East Peoria (KK) or South Milwaukee plant. Critical colleagues were recruited using "rational sampling." An email was sent to a predetermined list of 25 research candidates within the identified groups, with participation limited to only those identified on the study participant list.

The mix of participants within the groups was intentionally weighted towards participants most closely associated with the leadership team with at least one individual preferred from the community leader and plant manager groups. Figure 7 shows the distribution of the invited critical colleagues versus the final distribution of those completing and returning consent forms. Table 1 shows additional information by group role.

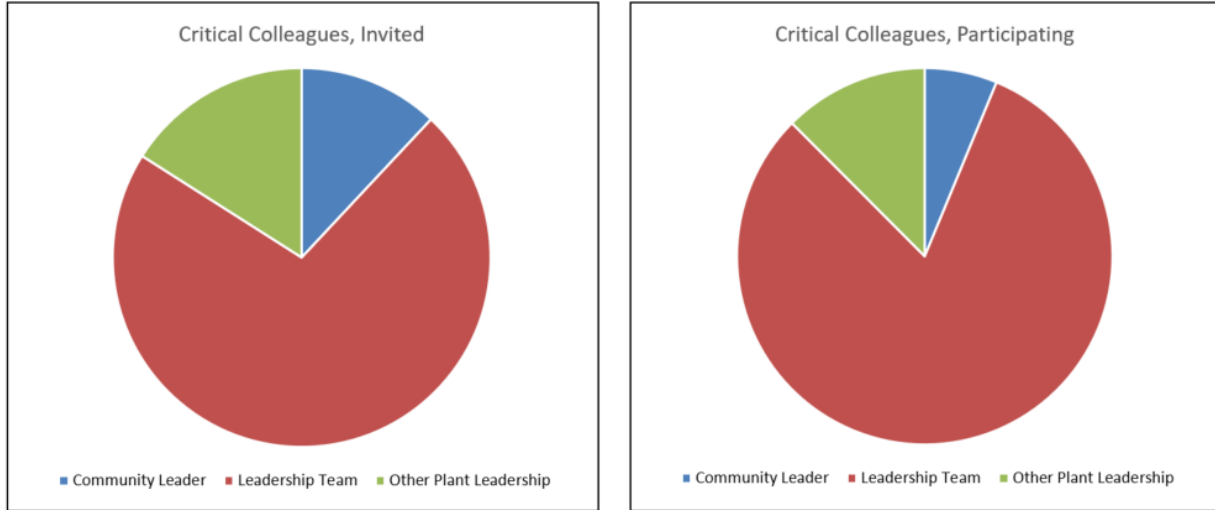


Figure 7. Visualization of the critical colleagues by role invited to join the study in comparison to the critical colleagues by role participating.

Table 1

Critical Colleagues by Role

Role	Invited		Responded	
	N	%	N	%
Community Leader	3	12%	1	6%
Leadership Team	18	72%	13	81%
Other Plant Leadership	4	16%	2	13%
Total	25	100%	16	100%

The study criteria specifically called out for a minimum of five participants. From the distributed consent forms, 16 critical colleagues, at least logged into the online survey, and 14 respondents participated in one of the five online presentations of the research materials. Of the 14 participants in the presentation, 10 completed the presentation survey. Table 2 summarizes the number of participants at each stage of the data collection period.

Table 2*Critical Colleagues by Participation Level*

Parameter	Invited	CF-R	RP-SC	P-A
Invitees / participants	25	16	15	14
Percent vs original candidate pool (25)	100%	64%	60%	56%
Percent vs individuals completing consent forms (16)	n/a	100%	94%	88%

Note: CF-R = consent forms returned; RP-SC = research paper, survey completed; P-A = presentation, attended; P-SC = presentation, survey completed

Initial assessment of the results. The initial assessment of the survey data was structured as a review of each survey by question, then a review of the combined individual questions from the research paper and presentation surveys, and an aggregated review of the data from the combined questions and surveys. Prior to receiving the survey results, there was uncertainty as to how much each respondent would write and the depth of insight provided through the writing. Without a previous baseline for responses, the researcher thought there would be enough word-based data to conduct more direct quantitative analysis or create simple graphical representations of the word count data to visualize the responses by question.

Analysis of the individual surveys. Microsoft Word was used to determine the word counts from the exported SurveyMonkey data. From a quick, initial view of the word count data, there was concern that the responses were not balanced across questions and between respondents. At this point in the analysis, the emphasis was on reviewing the content provided by respondent by question. As can be seen in Table 3, there were fifteen respondents who started the research paper survey. Of the fifteen respondents, one individual did not enter any data for the survey questions and the overall analysis of the research paper survey was based on fourteen respondents.

Table 3*Word Count by Question, Research Paper Survey*

RRP	Q4	Q5	Q6	Q7	Q8	Total
1	11	24	29	8	36	108
2	13	22	41	21	2	99
3	16	13	19	32	62	142
4	174	65	33	85	37	394
5	31	88	137	21	55	332
6	26	12	11	102	12	163
7*						
8	31	19	16	1	19	86
9	8	1	9	76	99	193
10	243	24	110	49	52	478
11	28	29	44	51	7	159
12	24	54	27	7	196	308
13	5	7	1	142	61	216
14	358	58	32	32	-	480
15	164	118	192	-	-	474
Total	1,132	534	701	627	638	3,632
Mean	81	38	50	45	46	52
Std Dev	110	34	56	43	52	65
Min	5	1	1	-	-	-
Max	358	118	192	142	196	358

Note: * No data was provided by participant. R_{RP} = Research paper survey respondent.

There was significant variation within questions and between respondents with a few respondents dominating the responses for each of the question. For example, four respondents dominated the word count on Question #4 with responses two- to four-times the mean. For Questions #5-8, two respondents provided responses two-times the mean. A few respondents dominated each of the questions based on word count with the individual, dominant respondents varying across the questions. The percentage impact of the top three respondents (21% of the total respondents) are shown in Table 4.

Table 4

Percentage of Total Word Count by Top Three Respondents (21%), Research Paper Survey

	Q4	Q5	Q6	Q7	Q8
Percentage of Total Word Count	68%	51%	63%	52%	56%
Top (3) Respondents	4, 10, 14	4, 5, 15	5, 10, 15	4, 6, 13	3, 9, 12

With a few respondents dominating the results of each question of the research paper survey, a similar review of the presentation survey was conducted. At this point in the analysis, the presentation survey was analyzed as an independent survey. Later in the analysis, the two surveys were connected by the unique survey identifiers to determine if the same respondents dominated the word count on both surveys. The review of the presentation survey indicated only ten respondents completed the second survey. Within the research process, no attempt was made to determine why four of the respondents did not complete the presentation survey though fourteen participants attended one of the five presentations of the materials. Table 5 summarizes the results of the presentation survey. The presentation survey had two respondents not fully answer all questions.

Table 5*Word Count by Question, Presentation Survey*

R _P	Q4	Q5	Q6	Q7	Q8	Total
1	6	11	11	1	44	73
2	25	61	48	35	40	209
3	78	30	47	23	23	201
4	94	64	62	32	51	303
5	11	22	11	53	46	143
6	21	12	3	3	57	96
7	16	13	19	106	21	175
8	4	18	27	1	1	51
9	20	23	18	1	-	62
10	4	21	1	-	-	26
Total	279	275	247	255	283	1,339
Mean	28	28	25	26	28	27
Std Dev	32	19	21	34	22	25
Min	4	11	1	-	-	0
Max	94	64	62	106	57	106

Note: R_P = Presentation survey respondent.

As with the research paper survey, a few respondents dominated the word count in the presentation survey. As can be seen in Table 6, a few respondents dominated the word count for each question, but which respondent dominated, varied across the individual questions.

Table 6*Percentage of Total Word Count by Top Two Respondents (20%), Presentation Survey*

	Q4	Q5	Q6	Q7	Q8
Percentage of Total Word Count	71%	56%	64%	76%	54%
Top (2) Respondents	3, 4	2, 4	2, 4	5, 7	5, 6

Analysis of the combined surveys. As the questions were nearly identical between the research paper survey and the presentation survey, the two surveys were combined to determine the variation in word count between questions and between respondents. The surveys were combined by using the unique survey identifiers provided by the respondents (see Table 7). The combined surveys provided a better view of how the overall feedback process had worked. Unexpectedly, two of the highest word count respondents from the research paper survey, Respondents #14 and #15, did not participate in the presentation survey.

Table 7

Word Count by Question, Combined Surveys

R _{RP}	Research Paper Survey					R _P	Presentation Survey					Total
1	11	24	24	8	36	5	11	22	11	53	46	251
2	13	22	22	21	2	2	25	61	48	35	40	308
3	16	13	13	32	62	10	4	21	1	-	-	168
4	174	65	65	85	37	9	20	23	18	1	-	456
5	31	88	88	21	55	6	21	12	3	3	57	428
6	26	12	12	102	12							163
7*												
8	31	19	19	1	19	1	6	11	11	1	44	159
9	8	1	1	76	99	3	78	30	47	23	23	394
10	243	24	24	49	52	7	16	13	19	106	21	653
11	28	29	29	51	7							159
12	24	54	54	7	196	8	4	18	27	1	1	359
13	5	7	7	142	61		4	94	64	62	32	519

(continued)

Table 7 Continued*Word Count by Question, Combined Surveys*

RRP	Research Paper Survey					RP	Presentation Survey					Total
14	358	58	58	32	-							480
15	164	118	118	-	-							474
Total	1,132	534	534	627	638	279	275	247	255	283		4,971
Mean	81	38	38	45	46	28	28	25	26	28		71
SD	110	34	34	43	52	32	19	21	34	22		65
Min	5	1	1	-	-	4	11	1	-	-		-
Max	358	118	118	142	196	94	64	62	106	57		358

Note: * No data was provided by participant. R_{RP} = Research paper survey respondent. R_P = Presentation survey respondent.

Tagging of phrases. As the survey responses had insufficient data to conduct more direct quantitative analysis or create simple graphical representations of the word count data, various analytical approaches were considered to enhance the available information. Understanding some respondents had higher word counts for the same question than other respondents, the questions were reviewed again, and tags were created to summarize specific ideas and concepts. For example, the following survey response was provided to Question #7 for the research paper:

“Honesty, Integrity, Open Communication all touched on but cannot be emphasized enough (IMO). Keeping folks informed but not too informed is an art. I certainly understand the need for it but maintaining honest open communication is absolutely an important part of this process that must be adhered to on regular schedule. You did hit

that but need to find a way to emphasize that a little better so the reader understands just how important it is.”

This specific response was summarized using the following tags: Discuss-Open-Communication; Discuss-Honesty; Emphasize-Importance-Comm; Discuss-Integrity and Discuss-Informed-Not-Too. Tags were structured with the main point of a single idea as the first key word. A hyphen was then added for readability and structure. The word following the hyphen summarized the outcome of the main point. For example, actionable points began with a verb like “discuss,” “clarify” or “add” and followed with an area of focus like “leadership,” “teamwork” or “team.” General comments began with a noun like “presentation,” “presenter” or “study” and followed with a verb and adjective combination like “was good;” “was clear;” or “was well done.”

Tags allowed individual ideas to be captured, eliminating some of the challenges of two respondents expressing similar ideas with significantly different word counts. Tags also allowed for multiple ideas to be captured in the same response. The analysis was facilitated using the coding and tagging features within SurveyMonkey and then further refined using features within Microsoft Office 365. Microsoft Excel proved effective in the overall analysis cycle on the response tags—sort, pivot, categorize, aggregate, analyze and reflect, and further categorize. Repeat the cycle as necessary.

After the responses from both surveys were tagged, there were 185 unique tags with 128 tags from the research paper survey and 57 tags from the presentation survey. After the initially tagging, the tags were further evaluated for any quick-win duplicates such as “Clarify-Chapter2” and “Clarify-Chap2.” Where obvious, similar tags were consolidated. The data was aggregated at this point, because of the distinct presence of the two categories (“action” and “comment”) and

the likelihood the aggregation would simplify the final analysis. As stated previously, an “action” was a respondent request to do something, characterized by a verb— “explain,” “describe,” “evaluate,” “clarify,” “simplify,” etc. A comment was a general statement— “good presentation,” “thank you for inviting me,” “well done,” etc. As one survey response could have multiple tags, one survey response could have multiple categorizations. The categorizations were evaluated separately for the research paper and presentation; by paper and presentation by question; and as a combined paper-presentation (see Figure 8).

Categorization	Written Paper					Paper
Question	Q4	Q5	Q6	Q7	Q8	Total
Action	18	23	17	22	11	91
Comment	19	3	5	2	8	37
Total	37	26	22	24	19	128

Categorization	Presentation					Presentation
Question	Q4	Q5	Q6	Q7	Q8	Total
Action	6	5	9	7	2	29
Comment	8	9	2	1	8	28
Total	14	14	11	8	10	57

Categorization	Combined					Paper
Question	Q4	Q5	Q6	Q7	Q8	Total
Action	24	28	26	29	13	120
Comment	27	12	7	3	16	65
Total	51	40	33	32	29	185

Categorization	Grand Total
Action	120
Comment	65
Total	185

Figure 8. Aggregation of data tags.

The results were further evaluated using two approaches. The first approach was to look at the results by survey question. To simplify the analysis, the combined results for the research paper and the presentation were evaluated by question. The second approach, discussed later, used the fully aggregated data to create actionable “buckets” for further work.

Analysis by combined survey questions. The high-level results for the combined research paper and presentation surveys for the formal questions (#4-8) follow. The results for the research paper and presentation were combined as the results were similar by question between the research paper versus presentation, and the combined responses provided better insight.

- 4. Overall material: Is the overall research paper / presentation clear? What is missing? What should be clarified? What should be excluded?**

There were 51 tags generated (28% of the total) between the research paper (37) and the presentation (14) for Question #4 with 27 of the tags related to general comments about the clarity and quality of the paper, presentation or presentator. Of the 24 actionable tags, 20 tags addressed overall content and 4 tags addressed structure. The tags regarding content focused on clarifying (7), discussing (6), adding (4), improving (2), and describing (1).

The “clarifying” tags included such items as the need for the discussion regarding union fines during the 2012 work stoppage (removed in later editing); the need to discuss the tenure / years of service demographics (removed in later editing); more about the hydraulics background of the facility (clarified and elaborated upon); and the impact on senior leadership and the community (clarified in later edits and also added to future research ideas).

The “discussing” tags included a series of topics including the asset transfer process used (not in scope of the research); issues of bias (addressed in the conclusions); deep family ties within the plant (not in scope); and other leadership issues which were incorporated in later editing.

The “adding” tags included a few interesting items which did not fit within the research including the auction conducted during the closing and the strong technical history of the plant. Feedback relative to the management of earlier rumors and the addition of more examples were incorporated in later editing. The remaining tags provided feedback on improving the readability of Chapter 2 and the structure of the leadership team (addressed in later editing).

The structural tags addressed issues on the use of references (edited for clarity and to APA standards); reducing the pace of the presentation (which self-corrected with practice for later sessions); and a future reference, to conduct the presentation before emailing the research paper for review (noted for future improvement).

5. *Material quality*: What one thing would you do to improve the overall quality of the research paper / presentation?

There were 40 tags generated (22% of the total) between the research paper (26) and the presentation (14) for Question #5 with 12 of the tags related to general comments about the overall quality (“good,” “outstanding,” “well done,” etc.) and quantity (“lots of material”) of the paper, presentation, research or message. Of the 28 actionable tags, 20 tags addressed overall content and 8 tags addressed structure. The tags regarding content focused on clarifying (7), discussing (7), adding (2), considering (2), emphasizing (1), and expanding (1).

The “clarifying” tags included such items as the discussion on the NLRB in the overall context of the research paper (removed for clarity in later editing); the use of the acronym AEM without associated definition in the wrong position in the research paper (corrected in later editing); the similar use of the acronym EAP without associated definition (corrected in later editing); why the researcher felt a “strong bench of leaders” existed (reworked for clarity in later editing); and the overall readability of Chapter 2 (improved in later editing).

The “discussing” tags included such items as the attention to detail displayed in planning and executing employee events (expanded in later editing); the Aurora shooting and other acts of violence relative to facility closings (tied the Aurora incident more clearly to the research but did not expand on the violence issues with additional examples); and similarly, inquiries on how other companies handled transitions, research on how other companies have found roles for people within their companies, and examples of closures done poorly were captured as future research opportunities, but were not within the scope of this research. Two other areas, the emotional space provided people on the final exit from the facility and a discussion point from

the presentation regarding trust were expanded and clarified in the later editing of the research paper.

The remaining content tags addressed a few areas of improvement and further research topics including suggestions for other, more specific examples (expanded and clarified in later editing); emphasizing the depth of ongoing, open communication throughout the closing (expanded and clarified in later editing); the desire for more background on the hydraulic tank business (interesting but not relevant to the research study); more discussion on the longevity and depth of the leadership team (added in later editing); and an additional opportunity for research from longitudinal studies based on this research (included in the further research discussion in the conclusions).

The structural tags addressed reducing the number of references used (references were not reduced but the existing references were edited for clarity and to APA standards); simplifying the overall presentation (which self-corrected with practice and additional editing for later sessions); and improving needed formatting and grammatical issues.

6. *Identifying additional best practices: Drawing from the research paper / presentation, what additional best practices can be identified and/or clarified?*

There were 33 tags generated (18% of the total) between the research paper (22) and the presentation (11) for Question #6 with 7 of the tags related to general comments about the quality of the paper (“well done,” “great,” and “thorough”) and certain topics having been exceptionally well covered (“trust continuum,” “lessons learned,” and “the team working as one”). Of the 26 actionable tags, all the tags addressed content. The tags regarding content focused on discussing (15), clarifying (5), emphasizing (3), capturing (1), and connecting (1).

The “discussing” tags were insightful including numerous improvements and clarifications on the role of EAP in the closing (incorporated into the final research paper); numerous thoughts on gaining external perspectives on avoiding plant closures and transitioning employees (captured in the future research discussion); requests for further discussion on executive leadership’s role in the Joliet closure (added in the final paper); the leadership style of the primary leader (expanded in the final editing); and more discussion of the leadership team and retired-rehirees (incorporated in the final editing). A suggested discussion topic on the transition of the property back to the landlord was evaluated but not pursued to maintain the research focus.

The “clarifying” tags were focused on discussion points on the role of an executive coach versus mentor (clarified in the final paper); on the use of a personal board of directors by leaders (removed to improve clarity); the importance of the photo collection and the need to treat the photos with great respect and care (clarified in the final paper); the importance of serving together at the homeless shelter (clarified in the final paper); and a suggestion for further research on how and where people were placed in the job transition period (added to the future research discussion).

The remaining content tags addressed opportunities including points in the final paper on the primary leader’s coaching style; the support people received on pursuing opportunities that were best for the individual including roles outside of the company; the strong relationship that existed between the primary leader, leadership team, and extended team; and the value to the team of not having a leadership change of the primary leader in the final two years. There was also additional ideas captured for future research on employee tenure and the relationship with building and sustaining trust.

7. *Identifying additional insights and learning: Drawing from the research paper / presentation, what additional insights or learning can be identified and/or clarified?*

There were 32 tags generated (17% of the total) between the research paper (24) and the presentation (8) for Question #7 with 3 of the tags related to general comments about the thoroughness of the research paper; the unique perspective the leader as research provided in the to the research paper; and a similar comment from the presentation on the positive impact of the primary leader as researcher. Of the 29 actionable tags, 28 tags addressed overall content and 1 tag addressed structure. The tags regarding content focused on discussing (22), clarifying (2), exploring (2), emphasizing (1), and improving (1).

The “discussing” tags covered several areas including the potential presence of bias (discussed in the conclusions); the perceived lack of corporate support (discussed in the conclusions); several comments on the Employee Assistance Program (EAP) including the program structure (“followed the Kübler-Ross’ grief cycle model”), importance of valuing and addressing every individual (“perception is reality” and “leaders could not write off any opinion or believe, but rather address every single point honestly”); and the ability to build the program on an external safety professional’s earlier presentation. The substantial feedback on EAP drove an expanded discussion in the conclusions elaborating on the points raised from the surveys. Additional “discussing” tags provided feedback on many aspects of leadership theory including the overall characteristics of a leader as well as specific attributes that the respondents felt were present in the closure (“compassion,” “humility,” “honesty,” “integrity,” “open communications,” “flexibility,” and “the ability to relate to employees,”). Some of the feedback on leadership theory drove editing within the literature review and theoretical framework. Other

feedback was beyond the scope of the literature review but was captured in the conclusions. The last area from within the “discussing” tags was on the need for “structure before relationship” as discussed in one of the presentation feedback sessions and reflected in the survey. This comment, from the work of Blanchard and Hersey (1969), added further insight on leadership theory in the conclusions.

The remaining content tags addressed issues within the research paper on clarifying the support provided by executive leadership beyond the primary leader (addressed in the conclusions); the origins of the “poker chip” recognition program (clarified in the final editing); the importance of communication (clarified in the final editing); and thoughts on future research which were incorporated in later discussions. The one structural tag shifted a discussion on volunteer activities at the homeless shelter to a more logical location on the recognition.

8. *Additional comments: What additional comments do you wish to share regarding the research paper / presentation?*

There were 29 tags generated (16% of the total) between the research paper (19) and the presentation (10) for Question #8, with 16 of the tags related to general comments about the success of the closure; the quality of the paper (“impressed,” “good,” “great job,” and “hopefully help folks in the future”); the quality of the presentation (“large deck” and “solid work”); overall statements of thanks and appreciation for being involved (“honored to be involved,” “proud to share in the experience,” and “thank you”); and pride towards the researcher in leading the closure and for self-development through further graduate studies. Of the 13 actionable tags, 10 tags addressed overall content and 3 tags addressed structure. The tags regarding content focused on discussing (9) and clarifying (1).

The “discussing” tags included two improvements to the research paper addressed in the final editing regarding the impact of the Aurora shooting and the typical time to closure in a plant closing. There was a further point on the presence of potential bias and a request to discuss the role of executive leadership in the closure activities. These points were addressed with similar feedback in the conclusions. The other “discussing” tags addressed possible extensions of the research through the exploration of other variables and potentially within longitudinal studies. This feedback was incorporated into the future research discussion in the conclusions.

The remaining content tag asked for clarification on how the discussion of how well the new plant was ramping up to production as the Joliet plant closed. The overall discussion was removed from the final research paper as there were no other references to the start up activities and the discussion was not relevant to the research.

The three structural tags addressed improvements in the overall research paper including a better editing for grammatical mistakes; the connection of the discussion section of the research paper to the literature review; and a potential style change in shifting the research paper towards a business book for later publication. The grammatical issues were improved in the final editing as was the better alignment of literature review to later discussion points. Whether to pursue publication in some way post-dissertation will be considered outside the context of the research study.

Analysis by aggregated “buckets.” From the analysis of the tags by question, there was an opportunity to improve the quality of the analysis by aggregating the tags into similar “buckets” of interest and discussion. The aggregated “buckets” leveraged the by-question analysis and added a more logical grouping of the topics for additional study and discussion. As the combined data provided better insight to the data, the aggregated “bucket” construction was

used moving forward in the analysis. Data indicators were maintained after the addition of the action-comment indicator to be able to separate back to constituent parts, if needed. Given the two categories of “actions” and “comments,” separate analyses were applied to each category. By the more static nature of the comments, the comments usually lacked a verb and were not actionable. Any tags or observations within the comments with a negative connotation were recoded to an action prior to the final consolidation and removed from the general comments. For example, a comment that read “Poor job. Chapter 2 is too long,” would have had two tags: “Comment-PoorJob-Chapt2” and “Comment-TooLong-Chapt2.” As these are not actionable and missed an opportunity to improve the research, the comment review would have recoded these tags to “Review-Chapt2-PoorJob” or “Edit-Chapt2-TooLong.”

Category	Count	
Paper	31	
Presentation	20	
Researcher	8	
Other	6	
Total	65	
Category	Subcategory	Count
Paper	Clear	8
	Clear, Information	1
	Clear, Organization	1
	Clear, Research	2
	Clear, Terms & definitions	1
	Clear, Very	1
	Good	2
	Good, Quality	1
	Good, Structure	1
	Great, Job	1
	Hopefully Helpful	1
	Impressive	1
	Logical	1
	Research, Outstanding Job	1
	Research, Perspective Valu	1
	Send Final Report	1
	Thorough	2
	Trust, Resonated	1
	Well Done	1
	Well Written	2
	Total	31
	Category	Subcategory
Presentation	Clear	5
	Covered well, BPLL	1
	Excellent, Discussion of BPLL	1
	Good	3
	Good, Clarity	1
	Large Deck	1
	Lots of material	1
	Research, Well Thought Out	1
	Solid, Message	1
	Solid, Work	1
	Thorough, Research	1
	Trust, Liked	1
	Well Done	1
	Well Done, Very	1
	Total	20
Category	Subcategory	Count
Researcher	Helped Navigte	1
	Liked, Transparency	1
	Positive, As Leader	1
	Proud, Management of Closur	1
	Proud, Self Development	1
	Proud, Share	1
	Thank You	2
	Total	8
Category	Subcategory	Count
Other	Closure, Successful	1
	Experience, Emotional	1
	Experience, Lived	1
	Involvement, Honored	1
	Team, Great	1
	Team, One Team	1
Total	6	

Figure 9. Configuration of general comments.

From a review of the comment categorization and subcategorization (see Figure 9), only general comments remained with no apparent negative feedback and none of these

comments actionable. Other than for general, future affirmation, no further action was taken with the comments and the focus going forward was on identifying quantifiable next steps from the actions.

Like the initial analysis, the “actions” category was evaluated for any logical subcategories to potentially simplify the analysis, and two subcategories were apparent: “content” and “structure.” Items in the “content” subcategory addressed feedback related to topics and substance within the existing paper and presentation. For these items, feedback was about “discuss,” “clarify,” “describe,” “expand,” etc. These key action verbs were used to refine the tags and overall analysis. The subcategory of “structure” addressed feedback relative to how the material was presented or appeared, where the material was located and whether the material was consistent to the overall paper or presentation. For these items, feedback was about “improve,” “fix,” “make,” “reduce,” etc.

Similarly, to the content analysis, the key action verbs were used to refine the tags and overall analysis for the structure items. Of the 120 items of actionable feedback, 104 items addressed content (87%) and 16 items addressed structure (13%). The analysis approach used with the outcome of the analysis can be seen in Figure 10.

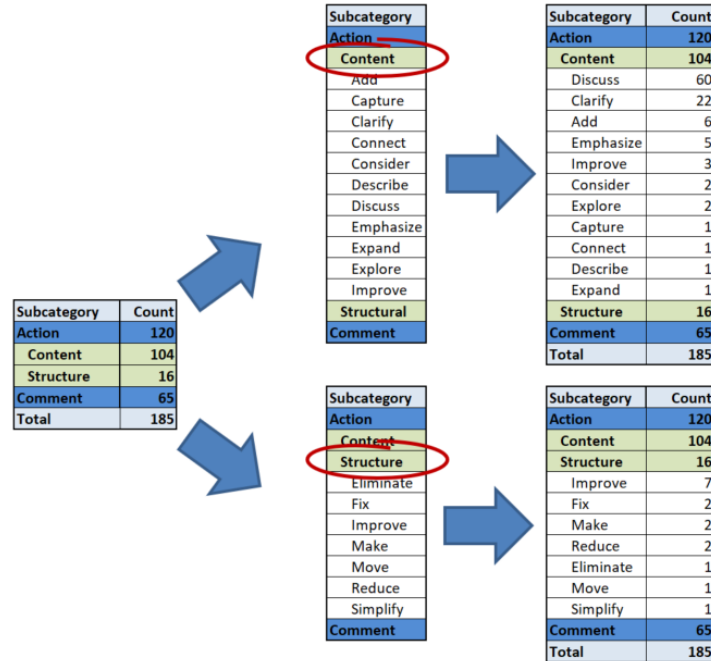


Figure 10. Categorization process of content and structure.

Having removed the “comment” items from further analysis, the analysis focused on the 120 content and action items. With the standardized list of actionable verbs, the feedback items were again reviewed, simplified and evaluated in logical groupings. With the goal of leveraging all feedback, the following groupings were developed (see Figure 11) and described below:

- *No further activity (14)*: Feedback items that identified an interesting fact about the Joliet plant that did not fit within the developed study (“discuss Joliet’s legacy of technology development”); provided feedback that would change the nature of the research study (“use less references”); or were too broad (“more examples”) were grouped as “no further activity.” There were 14 tagged items in this group. Caution was applied with these items as the use of referencing and the need for more examples could have indicated additional editing was needed. As the need for more editing was already identified, those tagged items seemed acceptable to group here.

- *Completed (45)*: Feedback items that had enough specific detail to drive an improvement to the latest version of the research paper and presentation were grouped into “completed.” There were 45 tagged items in this group. Specifically, 9 structure improvements were completed and 36 content improvements, including clarifications of key points and terms; elimination of confusing points between chapters; and general flow improvements. To be in this group, the tagged item drove a specific, documented improvement.
- *Future research (23)*: Feedback items that were beyond the scope and intent of the research study but contained ideas that extended the research into new, insightful directions were grouped into “future research.” There were 23 tagged items in this group. The future research ideas are briefly discussed later in this analysis section and more fully in the conclusions.
- *Valid, further review (38)*: Feedback items within the scope of this research study but were difficult to incorporate within the existing structure of the document where grouped into “valid, further review.” There were 38 tagged items in this group. As the critical colleagues were specifically selected for their overall understanding of plant closings, and their experience and insights specifically with the Joliet plant closure, the desire was to incorporate all the feedback into the research.

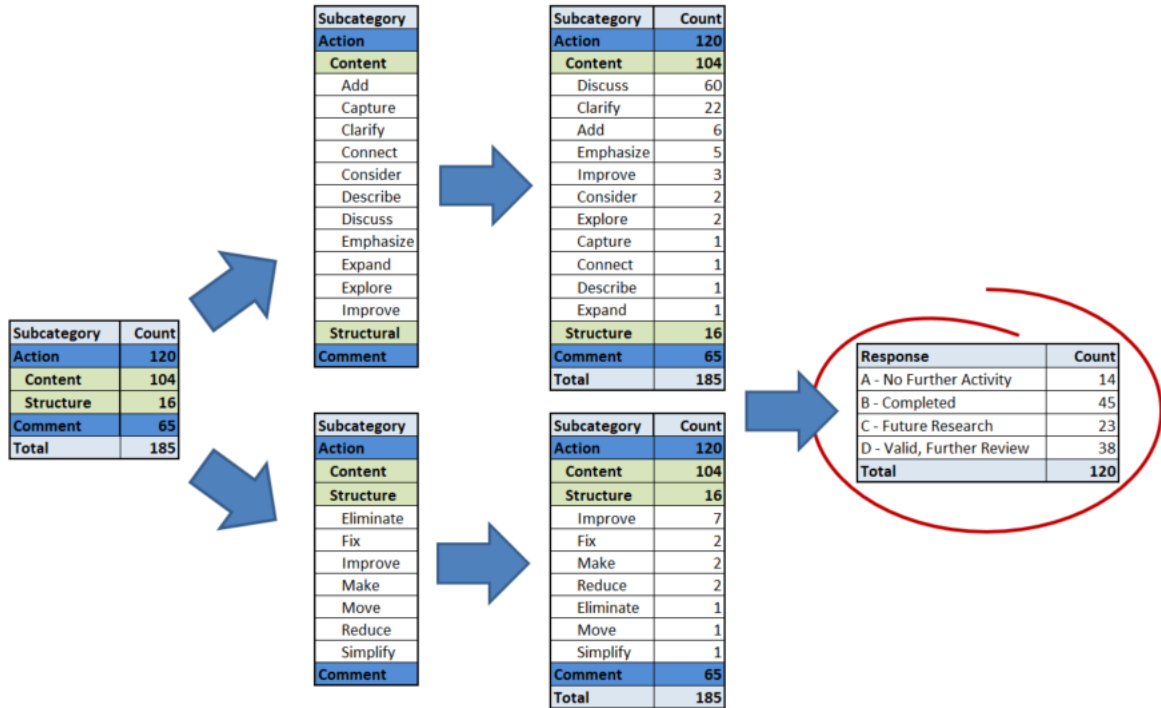


Figure 11. Next steps from the content-structure actionable verbs.

Specific to the future research opportunities, the critical colleagues identified 23 potential, future research projects as new, multi-company studies (16); and extensions of the Joliet plant study (7) including a suggestion to republish the research study as either a case study or business book. Relative to new, multi-company studies, the critical colleagues focused on what happens in closures done poorly; understanding the overall closure experiences in more detail including through longitudinal studies; understanding how to avoid plant closures; the effectiveness of job movement activities at other companies (the transition process, the ability to get jobs within the company, and the ability to get jobs outside of the company); the impact of critical variables on closure effectiveness (plant age, and total time from first notice to final closure); and how often the right leader appears at the right time. Within the extensions to the Joliet plant study were recommendations to evaluate the impact on the community during the closing period; to obtain individual “voices” (comments, insights, and impressions) from the

working level people from the closure and evaluate these voices against the study; and the impact of critical variables on work performance and job placement.

Relative to feedback items identified that have exceptional merit but were difficult to directly incorporate into the research study, there were 38 items. These items, requiring further review, were grouped into five broad areas that aligned with the materials within the research study but were issues that could not be quickly edited into the study. The intent here is to discuss the general points identified and then to more fully address the topics in the conclusion chapter.

The broad areas were:

- *Caterpillar corporate role (5)*: The research study did not discuss what support resources were available to the plant manager and leadership team during the closure. Some critical colleagues felt a window of learning had been missed at a corporate level as lessons learned were not directly captured and leveraged for future organizational changes. Others critical friends wanted to understand how Caterpillar might specifically use this study.
- *Researcher Bias (4)*: A few critical colleagues asked if there was potential bias present as the closure had been portrayed in a more positive manner than would be the case with a more removed researcher. Specifically, there was the direct request for feedback on what did not go well in the final two years.
- *Employee Assistance Program (11)*: The established Employee Assistance Program (EAP) and the EAP professional were integral to the successful closure of the plant, and EAP is discussed at length in the study. Given that context, the critical colleagues identified additional, deeper areas for discussion.

- *Traits, Leadership (11)*: Some critical colleagues highlighted specific traits of leadership meriting discussion (open communication, compassion, personal connection, flexibility, honesty, humility, and integrity) that they felt were integral to the success of the closure. Other critical colleagues, within the topic of leadership and leadership traits, wanted further discussion on the coaching style used with the leadership team.
- *Other Items (7)*: As a “catch-all” area for a few items, there was an interest from some of the critical colleagues to discuss the depth of talent available in the leadership team; to spend more time on “structure before relationship;” to discuss whether trust can be taught or not; and to clarify why an executive coach is a better option than a mentor or an internal coach. Lastly, a critical colleague suggested that in doing a similar process again, reviewing the presentation before the research paper would be a significant improvement.

The discussion that follows in the next section more fully ties together the context of the research (Chapter 1) with the theory and practice (Chapter 2). This research study has the benefit of being focused, shaped and improved through the active involvement of the critical colleagues. The discussion of the value of the critical colleagues is further discussed in the conclusions (Chapter 6).

Chapter 5 - Discussion

Research Questions

This research study collected, analyzed and reflected on the leadership experiences encountered in a long-established, large-scale manufacturing plant closure. Three sub-questions were defined within the central research question:

Primary leader. *How closely does leadership practice align with research in a real-world plant closure?* The question proved to be more complex than originally conceived, as the style of leadership mattered in the closure. Relative to the Joliet plant closure, the plant manager had an ethical leadership style. As an ethical leader will set the direction for the organization, and with the strong interaction between leaders and followers at the Joliet plant, the various roles drove each other to higher levels of good (Northouse, 2011). The following section compares the attributes of the ethical leader to what occurred at the Joliet plant. *Specific comments regarding the Joliet plant closure are italicized.*

- **Provide foundation.** Ethical leadership provides the needed foundation for the leader to move forward in a way that is beneficial to the leader, team and other stakeholders. *In the Joliet plant closure, the plant manager consciously structured the transition planning to serve the needs of the extended team through forward moving activities including structured training and development paths; various seminars and career open houses; and through the closing ceremony activities including the “last meal,” yearbook project and legacy video.*
- **Achieve the right means.** The emphasis within ethical leadership theory is on achieving the ends with the right means. Ethical leadership is defined as “a process in which a good person acts in the right ways to accomplish worthy goals” (Northouse,

- 2011, p. 244). *The plant manager and the leadership team focused on the team first, and the extended team responded with exception performance and customer focus. The plant manager intentionally shifted the ongoing closure discussion from transactional (“you work, you get paid”) to purpose-focused (“we have two years to prepare you for a new future—where do you want to go?”).*
- **Respect for others.** The perspectives, values and engagement of the individual matters in the decision making. The focus of the ethical leader is listening, understanding and valuing the team member. *The All Employee Meetings (AEMs) were structured to address any rumors and questions the extended team might have. The plant manager always personally addressed the rumors and questions section of the AEM. The ongoing off-shift meals captured the concerns of the people on the shift. Any event or meal was expected to be conducted with excellence and with a sense of generosity to the team members. The off-shift meals and special events were always personally sponsored and attended by the plant manager.*
 - **Serve others.** The ethical leader tries to serve the needs of the individual team members in balance with the needs of the team and overall organization. The emphasis in service is on the follower and not the leader. *For any meal, the expectation was clear that the leadership team served the extended team and the leaders always ate after the extended team was served. The emphasis in communication and planning was the leaders would “go the extra mile” to do what was right for the team.*
 - **Show justice.** The ethical leader makes decision based on distributive fairness (equity, equality, and need); procedural fairness (all can speak and appeal while

guarding against bias); and information fairness (decisions are explained, feedback timely, the message tailored to the individual need; Northouse, 2011). *As the Employee Assistance Program (EAP) workshops proved highly effective, the workshops were extended by the EAP professional, in partnership with the plant manager, to all personnel on the site and not just the Caterpillar team. Additionally, any extended team meal was open to anyone on the site who wanted to participate. There was no differentiation by payroll, company or opinion on the ability to participate in a special event.*

- ***Be authentic.*** The ethical leader balances candor with care, taking responsibilities for their actions, words and commitments. *The plant manager had no hidden agendas or vague messaging in the Joliet plant closure. The plant manager and the leadership team were consistent on the closure messaging, encouraging people to develop a personal career plan for what was next. Of the training and development options provided, many of the options came directly from team member suggestions and requests. The goal was to communicate a clear and consistent message on the closure while being open to listen, identify and act on opportunities to grow and develop the team members.*
- ***Build community.*** The ethical leader tries to integrate the interests of the extended team to build a common goal for the common good. *The reality was the plant was going to close. The purpose of the last two years together was for the plant manager and leadership team to prepare everyone for the eventuality of closure and possibilities for the future. Individuals could choose to do nothing, if that was where*

they were at emotionally, but if an individual wanted more help, more help would be provided. The common goal became to “finish strong.”

Leadership team (followers). *What are lessons learned that can be discerned relative to the followers through evaluation of the various life cycle stages of a plant closing as compared to the research?* The immediate followers of the leader were also leaders of others. The leadership styles and the consistency of the individual leaders applying those styles with the leadership team were important. *Additional comments italicized below are specific to the Joliet plant closure.*

- **Engage followers.** Followers do not follow because they lack skills, motivation, and talent. The “ideal” followership model has the leader in partnership with actively engaged followers (Kelly, 1992). The followers are an active part of the team, bringing with them intelligence, energy, and self-reliance. *In the Joliet plant closure, the presence of the rehired-retirees were the critical connection that the team needed in the transition. The rehired-retirees were specifically selected for their interpersonal skills, process and technical knowledge, and deep heart for the extended team members. The rehired-retirees chose to return to work from retirement because of personal commitments to make a difference for the team and to ensure the plant ended with a positive, lasting legacy.*
- **Define the behaviors.** Carsten et al. (2010) found that followership was a social construct. Followers demonstrated behaviors that they felt their leader wanted them to demonstrate. If the leader wanted more passivity, the follower became more passive. If the leader wanted more aggressiveness, the followers became more aggressive (Carsten et al., 2010). *The leadership team rose to match and exceed the*

expectations of the plant manager through selfless service to the team and through personal commitment to leaving a positive plant legacy. The plant manager had exceptionally high standards and the leaders exceeded those expectations. In the same way, the extended team exceeded the standards set for them by delivering high-quality quality product, supporting their start-up partners and being customer focused. The high standards and personal commitment of the leaders permeated the extended team.

- ***Empower the followers.*** If the follower can be fully engaged, exemplary followers take on a selfless responsibility, assuming new and challenging roles within the organization. *The leadership team were the people that engaged the extended team on a day by day basis across all shifts. They led the team members in delivering on customer expectations but also served the team members as their advocates, coaches and mentors. Various leaders held multiple roles through the closure, taking on responsibilities and tasks as needed. The leadership team was exceptional at freeing up their team members when a job opening occurred but were themselves committed to stay through to closure. Through the deep commitment of the rehired-retirees to rearrange their personal lives, the rehired-retirees facilitated an effective transition plan for the entire leadership team and the extended team.*

Extended team (followers of followers). *What are the organizational issues encountered during a prolonged closing, are these encountered in the research and what does the research say regarding effective paths through the life cycle of closing?* The extended team exhibited many of the behaviors from Sutton's research (1983, 1987) with many of the potential downside behaviors not experienced in the Joliet plant closure.

Supported by the research. Three commonly held beliefs were displayed in the organizations investigated (Sutton, 1983):

- *Best employees “jump ship.”* The best employees leave quickly except for the very committed and most loyal employees, and those employees given some financial incentive to stay. *The loss of key people was experienced somewhat in the Joliet plant closure. Employees had numerous incentives to stay between tenure-based incentives and final severance payment. Many union-represented employees, with little union seniority, left in the first two years of the announcement. In the last two years of production, additional union-represented employees were hired due to the increase in customer demand.*
- *Rumors abound.* Sutton (1987) divided the total time of organizational death into four periods, the time: just before the closure announcement; just after the announcement; between the announcement and closure; and just after closure. In all time periods, the amount of rumors increased with the absence of communicated information. *Rumors were present throughout the closure, but rumors were minimized through effective communication. With the initial plant closure announcements in 2014 and 2015, rumors were pervasive. As closure approached, there were ongoing rumors present in the factory and office, but there was a structured process to collect rumors and to address the rumors in the monthly All Employee Meeting (AEM). Prior to the AEM, the plant manager would meet with the management team to provide an overview of the coming presentation materials and to answer any of their questions. Open question and answer (“Q&A”) periods were encouraged in the AEMs and the various leadership team meetings, where any*

- question would be collected and addressed. Section managers (supervisors) also addressed questions in their daily stand-up meetings and communicated issues back through their “chain of command” to ensure everyone had an opportunity to express their ideas and get a consistent answer to their inquiries.*
- *Employees have trouble accepting that a closure will occur. Sutton (1987) made the specific point that this lack of acceptance may not be as irrational as it first appears. With the complexity of issues around plant closures, some organizations had been threatened with closure over many years before the final closure announcement. In those cases, the employees were not sure that the “final” announcement was not some form of leadership threat or attempt for leverage. A lack of acceptance of the closure was a very distinct aspect of the Joliet plant closure. Consistent with Sutton’s (1983, 1987) research examples, the Caterpillar Joliet plant experienced a previous large-scale consolidation that had taken longer than first planned, and in previous contract negotiations, the IAM had made concessions to improve the plant’s competitiveness. As most of the factory was being emptied of equipment, there were people who thought the plant would reopen in some new form immediately after closure. The Joliet plant closure experience supported Sutton’s research (Sutton, 1983, 1987) that emotions in a closure are complex and what appears to be an “irrational” response may have a more complex and supported foundation than first appears. With little first-hand experience with plant closures, and only experiences with project delays, perceived labor concessions and ongoing union-management contract negotiations, the extended team can become “inoculated” to the idea of a permanent plant closure.*

Not supported by the research. Four commonly held beliefs were not displayed in the organizations investigated or were limited to specific organizations with prior issues (Sutton, 1983):

- *Productivity and quality suffer.* In most of Sutton's research examples, productivity and quality improved. There is some thought this was due to many of the more vocal, dispassionate employees being gone; the significant amount of pride in the remaining employees to do a good job; and employees trying to impress future employers. *The Joliet plant saw similar improvements in productivity and quality after the announcement of the closure and throughout the four years until the actual end of production. Specifically, the quality level of each of the four last years of production were at plant-best levels. The performance was attributed to individual pride; shared pride within the workforce; the direct connection of employees to customers; the need to demonstrate future employability; and the clear expectation to "finish strong."*
- *Employee sabotage and stealing increase.* Sutton (1983) found issues of sabotage and stealing in only one research organization where significant structure and process discipline had been removed. *The Joliet plant had only isolated incidents of property damage and petty theft, but nothing that was different than other facilities or different from incidents prior to the announcement of closure at Joliet. Theft and damage incidents were directly discussed in the All Employee Meetings (AEMs), being clear that individuals committing the offenses were not known. With a mix of Caterpillar, agency, contractors and temporary contractors on the site, the leadership team was careful to not assign responsibility to any one group. The plant manager was clear that Caterpillar would prosecute as evidence was discovered, and the message was*

clear—it was wiser to seek counseling, if someone was struggling, than to lose employment and an option for an early retirement or a final severance payment. The Joliet leadership team continuously pushed the theme of “see something, say something, do something” through the monthly AEMs and ongoing production meetings.

- *Anger toward management dominates.* There was some general hostility towards the organization and the leadership of the organization, but the dominant emotions were fear and sorrow. *The Joliet plant closure, as for any plant closure, was not a pleasant event, and the emotions were complex and very real for everyone involved. Neither the plant manager nor the leadership team ever expressed feeling any hostility directed towards them. As in the research (Sutton, 1983), the perceived emotions were anxiety about the future more so than anger, with people experiencing anxiety over their next career and life steps. There was also sadness about the end of working relations and Caterpillar careers. The plant also leveraged the Employee Assistance Program (EAP) professional in the monthly AEMs for the last eight months of production and added additional monthly sessions open to everyone on the site, covering topics on dealing with sadness and depression, building emotional resiliency, and finding hope.*
- *Conflict increases.* Conflict increased with only one research organization where there had been a history of open conflict. *The Joliet extended team behaved with exceptional professionalism throughout the transition time. There were times of frank and open dialogue, and some tense discussions, but people tried to work together, focusing on fulfilling customer orders and planning their next career / life steps.*

How fear manifested. There are several fears specifically identified by Schein and Schein (2019) driven by the two change anxieties. These are the fear of: power or position; temporary incompetence; punishment for incompetence; and loss of group membership. For each of the specific fears identified by Schein & Schein, representative comments have been added after the specific fear to provide a typical comment heard from the Joliet team:

- ***Fear of loss of power or position.*** “I have been here for 30+ years, and I can’t just start over someplace else.”
- ***Fear of temporary incompetence.*** “I haven’t interviewed for a job for 20 years. I won’t know what to do and I will look stupid.”
- ***Fear of punishment for incompetence.*** “If I go on an interview, I will make a mistake and they won’t hire me because of it.”
- ***Fear of loss of personal identity.*** “I know what I am doing here as a machinist. If I do get a new job, it will be starting over as some glorified button-pusher.”
- ***Fear of loss of group membership.*** “I should attend training, but I might be thought of as not supporting my work group.”

Unhealthy behaviors manifest. Fear by itself tends to inaction (resistance to change). As identified by Schein and Schein (p. 108), fear and anxiety can combine, leading to the unhealthy behaviors of: denial, scapegoating, bargaining or engagement loss. As these unhealthy behaviors did occur within the Joliet extended team at times, representative comments are provided following the unhealthy behavior:

- ***Denial.*** “There is no sense in doing anything because it doesn’t matter. There is nothing we can do about it anyway.”

- ***Scapegoating.*** "The plant wouldn't be closing except for the incompetence of management."
- ***Bargaining.*** "We will agree to work another month, but we expect significant concessions in a formal extension."
- ***Engagement loss.*** "I realize that I should stay another month, but I just want to retire now."

More on denial. Even to the end of production at the Joliet plant, there was a significant minority still in denial, even as machinery and equipment were being moved to other facilities and being sold in public auction. Some of the people thought the teams at the new sites would not be able to learn the required tasks due to the long learning curve and the closure would be cancelled; others thought management was not competent enough to get the new area running based on previous experience and the extended team would have work indefinitely; and still others thought the plant would close and immediately reopen as a non-union plant where many of the current team could get new jobs. Many on the team were experiencing a loss of personal identity and personal loss with the closure that denial provided some short-term relief. Individuals in this state would not talk about or discuss what the coming closure personally meant for them.

The rumors feeding the denial always had some basis in truth from what people were hearing and from what had been experienced previously. The leadership team kept reinforcing that the closure would happen and trying to directly address the basis of the rumors as directly as possible. The leadership team reinforced the start-up at the new sites certainly had significant technical challenges to work through, but this was a normal part of ramping up new production. In the earlier history of the Joliet plant, the extended team at Joliet had also worked through a

similar learning curve but in a less formal manner over many years as product was added to Joliet. Similarly, though the Joliet team was very experienced and capable at this point in production, the start-up team would also do well with time and were coming up the learning curve quickly.

The underlying issues behind the “management incompetence” concerns were the team’s experience with project delays from previous programs having implementation funding reduced as market demand slowed. In historical periods of market softening, high cost programs would be slowed to minimize spend during the downturn and accelerated when the economy picked back up 18-24 months later. Slowing down made sense during those previous times. In the current closure window, the extended team could see machines and equipment being moved out to the final schedule and closure would happen in months.

Lastly, the ongoing rumor of the plant closing and immediately reopening as a new business else had some connection back to the property owners (landlords). With Caterpillar no longer leasing the facility, the landlords needed to recover the lost lease revenue and the landlords were evaluating options for the land and building. The options being explored were logical variations for the property given typical land use in the area. Over the last two years of the Caterpillar lease, the landlord had evaluated various forms and combinations of leasing the building to another manufacturer; re-configuring the facility for a traditional storage facility or distribution center operation; or completely tearing the building down and repurposing the land. The major observation tied back to communication. The key takeaway from this discussion is in the absence of effective, ongoing communication, a significant minority of people will create details to fill in missing facts.

Importance of the Research

A specific outcome of the research was to use the participatory-reflective-collaborative cycle of the action research method to leverage the 27-month period that the primary researcher was in the plant manager role. A second outcome was to view the study through the lens of organizational theory to compare the closure experience with the body of research knowledge. Critical colleagues were used for added perspective and to ensure a healthy cycle of discussion, observation, reflection and learning occurred. As a wide range of emotions and feelings are experienced during closures (Appelbaum, Delage, Labib, & Gault, 1997), this research will improve the transition of individuals in a plant closing to a better future state, and minimize unhealthy responses of anger, depression, and self-harm.

Consequences of a poorly managed change. As this research study discusses the desire for a better (positive) plant closure outcome, this chapter quantifies the potential damages that can occur in the workplace; how the emotional and physical issues increase during and after a layoff or plant closure; and the quantification of the impact from previous research. The purpose of this discussion is to understand the consequences of closures and layoffs done poorly. Further context for effectively managing the people-side of closures and layoffs comes from a workplace shooting at an unrelated company that occurred near the Joliet plant during the plant's closure.

Homicide and assault. As of 2016, data from the US Census Bureau indicates the US manufacturing sector within the U.S. economy is significant with an employment level of 11.6 million people employed across 250,000 firms ("2016 SUSB Annual Data," 2018). In that same year, data from the National Safety Council (NSC) indicated the manufacturing sector had 18 homicides and 110 assaults ("Injury Facts," 2019). Similar data from the NSC, for the seven-year period of 2011-2017 within the manufacturing sector, indicated the number of homicides

ranged from 8-20 per year with an average of 13.3 homicides per year. Assaults ranged from 60-110 with an average of 92.9 assaults (“Injury Facts,” 2019). By NSC definition, “assaults are categorized as intentional injury by another person” (“Injury Facts,” 2019), and include intentional shooting, stabbing, beating, strangulation, bombing and arson, rape and sexual assault, and threats and verbal assaults. These total incidents are a very low percentage of the total employment within the manufacturing sector, but a significant concern for plant leadership during periods of workforce reduction and plant closings.

Depression and other health-related issues. Other studies have pointed to increased depression, substance abuse, and other health-related issues across the years following a plant closure (Browning & Heinesen, 2011; Manheim et al., 2003). Other researchers found similar outcomes for the people directly impacted by downsizings and layoffs (Appelbaum et al., 1999; Mishra & Mishra, 1994). Like a layoff, those going through a plant closing often experience “survivor’s guilt” or “survivor syndrome”—the physical and psychological pain of continuing after one’s co-workers are let go (Appelbaum et al., 1997). Survivor’s guilt has been attributed with loss of productivity, increased depression, reduced risk taking, and decreased engagement (Appelbaum et al., 1997).

The emotions involved with a significant staffing reduction from a plant closure, temporary layoff or permanent layoff can become unmanageable for the individuals involved (Brand, Levy, & Gallo, 2008). Factoring in the very real potential for unhealthy responses of anger, rage and self-harm from a poorly planned and executed plant closure, learning to mitigate these issues is important. During the transition window between the end of production at the Joliet plant and the end of the lease, there was a workplace shooting incident in the immediate

area. Though that incident was triggered by a disgruntled employee being fired and not by a layoff or plant closure, the incident made the potential risks more real for the leadership team.

Local workplace violence example. On February 15, 2019, a disgruntled employee about to be fired, murdered five employees and wounded an additional five police officers in a workplace shooting at the Henry Pratt Co. in Aurora, IL. The police spent 90 minutes trying to find the shooter in a 29,000 square foot plant where he had significant knowledge (Casiano, 2019; Martinez, 2019). As there was a Caterpillar plant in Aurora, IL also going through a plant closure, having an active shooter incident within 10 miles of the Caterpillar Aurora plant and 30 miles of the Caterpillar Joliet plant, had a significant emotional impact on the Caterpillar employees and leadership teams at both Aurora and Joliet.

As details of the shooting came out, the incident became more real to the leadership teams at Caterpillar Aurora and Joliet. The Henry Pratt Co. human resources manager, who was one of the first murdered, had been a Caterpillar employee who had moved to Henry Pratt because of his job concerns with the Caterpillar Aurora plant closing (Reyes, St. Clair, & Buckley, 2019). Many Caterpillar employees from Aurora and Joliet had personal relationships with employees that had been in the Henry Pratt Co. facility during the shooting. The key takeaway was incidents of workplace violence can occur anywhere at any time, and the extended team needed to be diligent and situationally aware.

Reflections post-closure. In wanting to drive a better experience in the closing process and post-closure experience for the individuals impacted, being aware of what is at risk relative to an individual's mental and physical health, and the impact one individual can have on the overall plant community is important. Driving a better closure experience requires doing the right things well and taking time to listen to the extended team daily. Though site security may

improve through better security protocols and better personnel screenings, a better closure experience for the extended team will not occur by only mitigating issues that may trigger a violent or harsh employee response.

In a more ideal research environment, surveys would have been used with the extended team and more in-depth data obtained through a longitudinal study. Relative to this project, those impacted by the closure were not surveyed, though this option was considered in earlier research proposals, but not pursued due to the timing and complexity. Additionally, there were potential conflict of interest issues that would have been created by inserting the plant manager into the role of principal researcher by formally interviewing people during the closure.

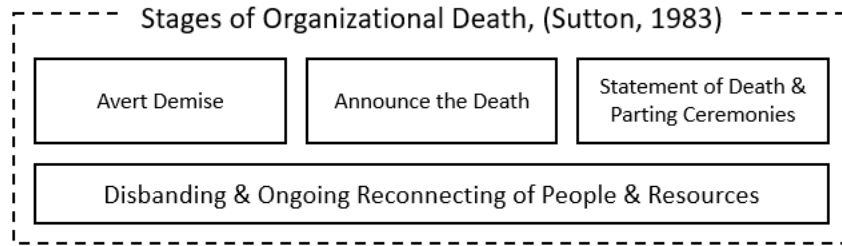
Without data from a structured study, assessing the impact on the extended team of the Joliet plant closure was reliant on anecdotal accounts between leaders and through social media. During the last few All Employee Meetings (AEM) prior to closing, the plant manager shared their personal email and mobile phone number with the extended team in the presentation materials. The extended team was encouraged to reach out as they needed help or wished to share a concern. The plant manager continued to get a consistent 5-10 weekly texts, emails and phone calls from extended team members for job referrals, references, and mutual updates for months after final production. Also, as the social network continued to be strong between various people and groups from the Joliet plant, and with the availability of social media like Facebook, there were no reports of major emotional or physical health issues or people experiencing significant financial hardship. People were disappointed that the plant closed, and some individuals continued to resent the Company, but most people moved on well. The economy post-closure also assisted those looking for new employment (“Will County workforce,” n.d.), with the Joliet team having strong, marketable skills.

In reflecting on the closure, within the theoretical framework, there were two additional questions for reflections: did the closure of the Caterpillar Joliet hydraulics plant go well (better than it would have if managed in a strictly transactional manner), and if it did go well (better), how could this “better” be quantified? The assumption was the transition to closure went acceptably well for those individuals involved and the community overall. There were not been incidents like the Henry Pratt Co. active shooter, nor issues of self-harm or significant medical issues regarding the extended team. At 2018 staffing levels, the Joliet plant was still a plant of significant size, with 500 employees in comparison to the 2012 national average for manufacturing establishment at 35.3 employees (Wright, 2013). Additionally, with the duration of most management-union agreements running three or more years (Compa, 2014), a time period from announcement to final plant closure of four years was not exceptional for a large, union manufacturing plant, though no national statistics are maintained (Van Buren-Jordan, 1993; Wayland, 2019). There was additional external feedback that the community adapted to the exit of Caterpillar effectively due to the significant notice of closure; the Company actively working through the closure with key community organizations; and the more diversified economy of the community being able to absorb the change (Greuling, 2019).

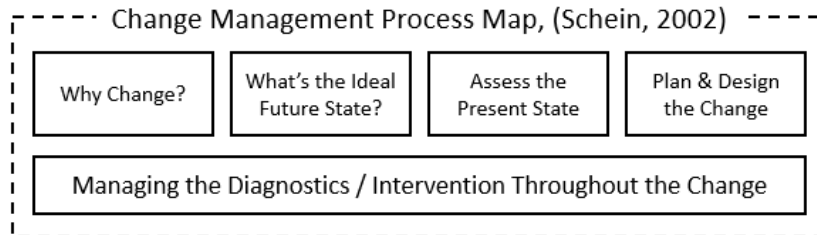
Working Model

A working structure assisted in understanding what happened in the plant closure and in transitioning people to new roles. A change management model for an improved plant closure was assembled by combining the available theories and practices from the literature review. The consolidated model started with the plant closing process flow (Sutton, 1983, 1987).

The key point was understanding the need to reconnect the team members to new roles and opportunities (Figure 3 from page 17).



Schein (2002) provided the change management process map to improve the closure transition (Figure 4 from page 23).



The combined model with the interaction of leaders and followers can be seen in Figure 12. This working model provided a structure for understanding the flow of a plant closure while potentially improving the outcomes for those individuals directly impacted.

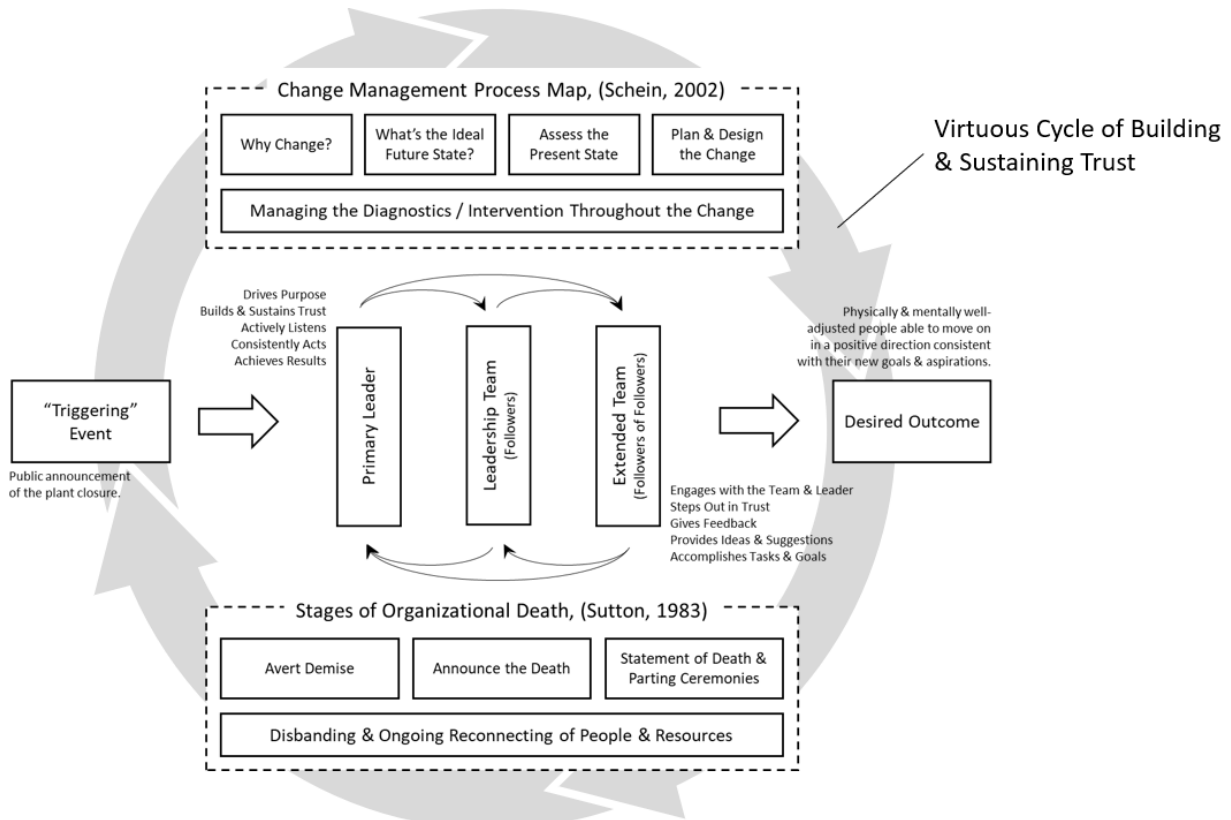


Figure 12. Change management model in a plant closure.

As has previously been reviewed, even with adequate leadership, without the presence of trust, the ability to move through the psychological state changes of the closure model successfully are reduced. Closure is still almost assured due to the finality of the process, though the closing may take longer, cost more and negatively impact more people. Trust (Mayer et al., 1995) must be established by the leader and sustained through an understanding of the psychological change states (Schein & Schein, 2019) in the context of closing (Sutton, 1983, 1987). Sutton (1987) indicates there are distinct steps that an organization will progress through, and if permitted, the organization will perform better than the leaders and managers are disposed to believe.

Schein (2002) provides movement to the ideal future state. The Joliet leadership team was not aware of the organizational death model (Sutton, 1983) nor the psychological change states model (Schein, 2002) during the closing. The combined models would have been useful

tools in understanding what was going on during the closure and in better structuring interventions through to the end. In hindsight, the understanding and application of the underlying theories would have provided processes and tools to improve the overall closing experience for the extended team. The lessons learned from this study, developed post-closure, will improve the outcomes of future plant closures.

Improvement Steps

The leadership team and the primary leader were not following a playbook or leveraging lessons learned from other closures. These type tools were not available during the closing. There was a project management plan developed internally and continually updated for the tactical activities of the closing. There was not a formal change management structure created nor had anyone suggested leveraging change management experience from other parts of the corporate for the closure. From the plant manager's experience, formal change management methods were activities used as needed or as preferred by project leaders in the lifecycle of general projects. Leveraging formal change management methods would have been an acceptable practice but were not required nor discussed.

In completing the closure, some of the formal requirements of effective change management were addressed in an ad hoc manner due to the experience of the leadership team and the ongoing communication between the leadership team and the extended team. In retrospect, five actions taken by the leadership team most impacted the overall outcomes of the plant closure:

- Created a resonate future state.
- (Re)Connected the extended team to the future state.
- Created movement towards the final state.

- Built and sustained trust.
- Formally, ceremoniously ended.

Created a resonant future state. Structurally, the Joliet plant had monthly All Employee Meetings (AEMs) on the same day for each of the three shifts. As the time was relatively short, 30 minutes on each of the three shifts, a consistent format allowed people to quickly understand the agenda, format and content of the meeting. As the plant ran on the daily execution of PQVC (“People-Quality-Velocity-Cost”) goal achievement, the meeting followed the same format. The AEMs also included a brief period of questions and answers at the end.

With the new plant manager, there was a desire from some employees to revisit the logic and fairness of the closure decision in the first few AEMs. In retrospect, a good decision by the plant manager was to clearly end further questions on the fairness of the closure, without getting dragged into overreacting or being condescending. The statement by the plant manager was something like:

“The closure decision is a done-deal and we are not going to revisit it. My role is to help people transition well into the next phase of their life and career. If you don’t want help, I won’t push you but you need to be think through what you want to do next in your career and life.”

In hindsight, the benefit in being clear on expectations relative to the closure topic, in helping the extended team move forward in the closing process, and in shifting the extended team out of denial was not immediately apparent. With the “fairness questions” removed from the question and answer time, there was a need to communicate clearer on what actions were being taken to move the team forward through closure. In communicating a clearer message, several themes and messaging were tried to find something to better explain where the plant was

going and not going in closure. A metaphor and a simile eventually resonated with the extended team—the metaphor was relative to what the plant was NOT, and the simile as to what the plant closing was LIKE.

- ***The metaphor was:*** “*the plant is NOT a hospice—the closing is certainly painful, but we will get through it.*”
- ***The simile was:*** “*the plant closing is like being in high school for the next two years. Think back to high school, no matter how much you loved or hated high school, you had to graduate and move on. You could blow off your final two years of high school or you could focus on your future—quit early, take some time off, get a job or go to college; but ultimately, how you spent those next two years was your call.*”

The high school simile was helpful after a few failed attempts at other metaphors and similes. The high school simile had traction because people found the mental model made sense and could be applied effectively. A team member could elect to quit their job (like quitting high school, there were some distinct disadvantages); take a year off (or more with retirement); pursue a new job or career directly after leaving; go on to college or vocational school (potentially with Federal assistance due to the closure circumstances); but, a team member did not have the option to stay at the Joliet plant past the end. The team member could leverage the resources available over the next two years to make the transition better, or the team member could choose to do nothing, but the decision was with the extended team member.

(Re)Connected the extended team to the future state. With a workable mental model that the closing process was like being in the final two years of high school, the leadership team had a framework for moving the extended team towards a better desired future state. The high school model provided context for future ceremonies for ending well (see Table 8).

Table 8

Moving People Forward Through the High School Simile to the Future State

Career events	<ul style="list-style-type: none"> ○ Resume writing and interviewing skills through the Workforce Services Division of Will County. ○ Financial planning seminars. ○ Visits by local workforce board and community college. ○ On-site open houses for companies looking for people (12). ○ Career fair with (14) companies.
Class electives	<ul style="list-style-type: none"> ○ Training and development paths. <ul style="list-style-type: none"> ▪ <i>Internal Caterpillar employment.</i> ▪ <i>External employment.</i> ▪ <i>Leadership development.</i> ▪ <i>Professional credentialing / certifications.</i> ▪ <i>Operational excellence (lean, Six Sigma).</i> ▪ <i>Further degreed education.</i> ▪ <i>Starting your own business.</i>
Extracurricular activities	<ul style="list-style-type: none"> ○ Hands-on 3D printing & additive manufacturing training from concept to final piece.
Financial aid	<ul style="list-style-type: none"> ○ Trade Adjustment Assistance (TAA) for workers.
Guidance counsellor	<ul style="list-style-type: none"> ○ Contract training and development consultant.

Activities within the simile that focused on ending and ending well are shown in Table 9.

Table 9

Ending Ceremony Activities to Complete the High School Simile with Closure

Holiday party	○ Catered end of year luncheon for 500+ people.
Graduation Ceremony	○ Six Sigma graduation and luncheon for the (47) people who completed Six Sigma Black Belt (SSBB) training.
“Senior Day”	○ Founders’ Day – recognition event for the plant’s 67 th anniversary with special recognition for the 50+ people with 35 years or more of service.
End of the year party	○ Recognition event for the end of production—a catered meal for 500+ people, featuring the 8 restaurants from the off-shift meals.
Yearbook committee	○ Yearbook team – interviewed all the Caterpillar employees on the site. Created a high-quality yearbook with team pages; individual pages dedicated to people with 40+ years of services; and dedicated pages for people with a multi-generational legacy at Joliet.
High school musical	○ Legacy YouTube video – a video commemorating the history and people of the Caterpillar Joliet plan throughout the 68-year history.

The leadership team defined an ad hoc future state to help the extended team move on. In creating the future state, the leadership team created a vision that was relevant and personal to everyone in the plant. Because the future state resonated with the extended team, building a workable plan forward became easier as more structure was framed around the high school simile. Clarifying and communicating the need to change also became easier as was planning and designing the plan forward. The activities were not done as part of a change management plan, but as a logical series of actions to help the extended team accomplish their future plans.

The model was also effective for onboarding new people. Prior to using the “last two years of high school” simile, explaining to a potential employee why they would want to join and

then stay 6-18 months with a company that was closing was difficult. With the simile providing a workable framework, joining the team became being part of something that was advantageous to the job candidate. Joining the Joliet team would provide needed job training as well as desired work experience in a positive team environment.

Created movement towards the future state. Through a mix of leadership intuition and trail-and-error messaging, the leadership team defined a positive future state for the extended team (Schein, 2002) and then “reconnected” the team to that future state (Sutton, 1983).

Focused on “finish strong.” In joining the Joliet plant organization, the new plant manager focused on building on the established processes and procedures. With any new leader, feeling personal ownership and accountability for the established plant goals was a priority for the plant manager. Establishing ownership and accountability for the plant goals was accomplished by rephrasing and internalizing the wording of the goals until the goals resonated. Four of the five goals were very straight-forward.

One goal proved problematic because the goal was not fully in the control of the extended team or leadership team— “make our business partners at the new production sites successful.” In closing the Joliet plant, the existing production was being moved to two new start-up production sites. As written, the goal was noble but not actionable. The difficulty with the goal was the Joliet team did not fully control everything needed to make the new start-up sites successful. Asking the people being directly impacted by a plant closure to help the new sites be successful was challenging and somewhat naïve. An analogy would be a goal to have a great marriage. An individual can have an actionable goal to be a good partner, but that same individual does not have enough control to ensure the success nor happiness of their partner.

The Joliet team could be a good business partner, but the Joliet plant did not control everything involved in making the new production sites successful. The Joliet team could choose to work safely, to have exceptional customer focus, and to respond to requests professionally in a timely and thorough manner. The Joliet team could not ensure success for the new site. Like the high school simile, spins on rewording the goal were discussed, thrown about and eliminated with one phrasing final resonating. The goal was reworded to be “the Joliet team will finish strong.” The idea of finishing strong had emotional connection at an individual level, at a team level and at a plant level. The goal statement carried the message of working hard and doing the best possible work to end with self-respect and dignity.

The idea of “finishing strong” resonated with people and connected what the extended team was doing at that moment (“current state”) and drove activity to a desired future state. Getting traction with the new goal statement took time and the idea behind the goal was clarified many times. For example, the idea behind “finish strong” was the Joliet plant closure was only one race of many future races that the extended team would run. The goal was NOT to “end strong.” The plant closure was an end for the plant, but not an end for the extended team members. Reframing the goal to “finish strong” helped reduce resistance to change.

Provided formal recognition. As the “finish strong” theme was gaining traction, a union-represented employee and their supervisor suggested a novel quality recognition program. The concept was to have poker chips (see Figure 13) printed with some sort of recognition phrase on one of the faces. In recognition for an individual doing something of note for quality, the special poker chip would be given to that individual. The individual could later redeem the poker chip for a drink in the plant food service area. A set of three poker chips could be redeemed for a

meal of the individual's choice, and a set of ten poker chips could be redeemed for a \$20 gift certificate (Amazon, Walmart, Home Depot, etc.).

In the discussion as a leadership team, there were concerns of having multiple recognition programs including a divisional, multi-site safety recognition program. The leadership team choose to stop participating in the multi-site safety program and to use the poker chip recognition process for recognition tied to the PQVC (People-Quality-Velocity-Cost) goals. Several other factors were liked about the poker chip recognition: the poker chips were easy to carry; the overall recognition "prize" was minor which kept everyone from overthinking the recognition; and the program was comprehensive across all goal areas.



Figure 13. Joliet recognition "poker chip," October 1, 2018. Public domain.

Each Monday morning, every leader received five poker chips with the expectation that leader would find one team member each day to recognize for some goal achievement activity. The program was well received by the leadership team and extended team. Fitting within the practice of doing things well, the poker chips were well made with the Caterpillar logo on one side and the "finish strong" theme on the other. A unforeseen

response to the program was people tended to keep the poker chips and not turn them back in. When asked, people liked the "bragging rights" in some cases of having a lot of chips, and in other cases, individuals felt "another chip was just around the corner." The recognition program proved to be another thing that aligned and moved people forward.

Built and sustained trust. The behaviors controlled by the leader in developing trust are ability, benevolence and integrity (Mayer et al., 1995). For the leader, having ability means to

have the skills, competencies and characteristics that allow a leader to influence a follower. The abilities must be of importance to the follower, and trust will vary across a continuum by follower and by leader ability—a follower may trust a leader in one ability area but not in another. For example, a leader may instill trust in the financial health of an organization in the wider community of followers due to the leader’s exceptional financial abilities, but the same leader may have less trust on personnel issues due to poor people skills. Similarly, in benevolence, the follower must believe the leader is acting in the follower’s best interest. Relative to integrity, the follower must believe the leader’s high personal integrity is aligned with what is important to the follower (moral integrity).

The leadership team built and sustained trust by doing three things while continuously communicating with the team:

- Established structure before relationship.
- Built an effective core team of capable and respected people.
- Engaged the extended team daily.

Emphasized structure before relationships. In establishing structure before focusing on the relationship, the plant manager conducted daily walks through the plant to understand production issues and to meet the individual extended team members. In these walks, the purpose was to listen, observe and learn. Engagement increased with improvements in housekeeping and with the increased focus on process discipline through the layered coaching.

Stressed housekeeping. Some of the initial observations were common facility areas had not been maintained. For example, the water basins in many of the large restrooms were no longer working due to lack of replacement parts, the floors were not being well cleaned because the floor scrubber was broken, and many break areas were not being cleaned. In the previous

year, basic facility repairs had slowed because of the decline in the economy and perception of the pending closure. With the economy doing better and the closure moved out to accommodate new customer demand, basic repairs and housekeeping needed to be re-prioritized and completed.

An unintentional message was the extended team was unimportant, where the intent had been only to save money with closure thought to be imminent. Housekeeping ties into ability in the Mayer et al. (1995) model. Leaders can be outstanding cost management people, but unless a cost management ability fosters a perception of trustworthiness within the working team, trust will not build. It is important for leadership to fund necessary repairs and maintenance as well as hold the individual work areas to high professional standards through the final closure.

Restarted layered coaching audits. Like housekeeping, some audit and coaching functions had been discontinued due to the earlier closure timing and to relieve a perceived stressor on the area work teams. The thought had been, “why do we need to do all of this process discipline activity, if we are closing soon?” The elimination of the coaching audits did not stop the areas from performing their work well but there was less consistency across work areas and a loss of alignment to plant goals. Reimplementing coaching audits improved engagement between the leadership team and the area work teams, and clarified expectations for newer employees.

A layered coaching audit consisted of a team visiting a work area and assessing specific functional tasks and roles. The purpose of the coaching audits was to ensure accountability to standards and to provide coaching on best practices to the area work teams. The layered coaching audits were more efficient than multiple, function-specific audits, with one coaching audit covering multiple functional areas like safety, quality, production and general management.

A coaching audit was “layered” as specific, critical functional tasks were checked in the work area across the layers of the organization—by the operator, supervisor, support team and plant leadership. Participants in the layered coaching audits included the members of the area work team, section managers (factory supervisors), support staff and the leadership team with participants evaluating areas outside of their normal function. Layered coaching audits used a standard assessment process, with the time in the area always scheduled with notice to the team.

Built a great leadership core. In building an effective leadership core, the focus was on three areas: quickly build a team of experienced and respected leaders and professionals; invest in growing the talent of the existing team members; and hire, then onboard needed talent.

Built the team quickly. With the closure of the plant announced, several exceptional retirees were asked to rejoin the team as full-time employees. As the “rehired-retirees” were Caterpillar employees, the retirees were leveraged as managers and supervisors in critical transition areas. The retirees were recruited back to the workplace due to their depth of process knowledge, their deep concern for seeing the people at the plant transition well, and for the deep respect the extended team had for the retirees.

The closure transition would not have been as successful without the rehired-retirees. As the selection of retirees was very focused, only individual with strong skills, talent and motivation were selected. With pre-retirement tenures of over 30 years for each of the retirees, the leadership team could replace an incumbent leader with an experienced retiree as transfer opportunities or external job opportunities occurred. Having deep technical expertise combined with experienced leadership skills were valuable through the transition to closure. Also, as these individuals were retirees already, no further transition planning needed to be done for the retirees other than committing to a final exit date.

Grew internal talent. There are new roles and skills needed during a closure, and individual team members can get new and unexpected opportunities to learn during the transition. For example, there was a need for new section managers during the transition. Historically, many of the section managers were developed and later promoted from team lead roles within the plant. A team lead is a union-represented employee that assists the section manager with work-related tasks that help keep the work area functioning effectively. At any given time, the team lead may fill in on a machine when someone is sick, train new people, set up the next job, lead root cause corrective action discussions plus other key tasks.

Getting an opportunity to transition to direct supervision can be a challenge for team leads and support staff when supervision is not a direct part of the role. This is especially true when team members interview at other Caterpillar facilities or for external jobs where the individual's skills, abilities and experiences are not known. When promising potential section managers were identified within the team leads or non-supervisory support roles, these individuals were sent to leader training programs through the local community college or through the Illinois Manufacturing Excellence Center (IMEC). These types of leader development programs increased the individual's confidence and abilities while also documenting the formal skill development. The rehired-retirees were also an exceptional resource for identifying, encouraging, mentoring and coaching team leads and support staff to be effective leaders.

Hired and onboarded well. As stated previously, the Joliet plant was still hiring new, union-represented factory workers ("new hires") through the summer of 2018 due to the steady increase in customer demand. Even with the public announcement of the closure and with clarity to the applicants that the jobs were short-term, the Joliet plant was still able to attract good

quality candidates for the union-represented factory roles. The plant manager and key leaders actively participated in the new hire orientation and training which ran for the first two weeks of the onboarding period. Though attrition occurred, the plant was usually able to keep people once the new employee completed training and joined their area work team. Though many new hires had entry-level skills and had not been in a large-scale manufacturing environment, the work team would get the new hires acclimated, and the rehired-retirees would provide needed training and coaching. As shift preference in a union-represented plant is determined by seniority, most of the new hires were only on 1st shift (7:00 AM – 3:30 PM) for a few weeks of training and then moved to either 2nd shift (3:30 PM – 11:00 PM) or 3rd shift (11:00 PM – 7:00 AM). Traditionally, the off-shifts (2nd and 3rd shift) have less support resources, and resolving production issues can be problematic. Having experienced retired-rehires on the off-shifts was an additional advantage for the new hires.

Engaged the extended team daily. An early quote from one of the executive leaders to the plant manager before starting the new role was, “take care of the people, and the rest will fall in place.” That advice proved insightful for the transition to closure. In “taking care” of the employees (extended team), these activities included: being clear on the leadership team’s commitment to individuals as job transitions occurred; leveraging the Employee Assistance Program (EAP) professional in the formal communication process and then expanding the EAP workshops for everyone at the plant; creating opportunities for learning and development open to everyone on the extended team; and going the “extra mile” for the team.

Committed to move management quickly. In the early closing process, key support people were identified and offered a retention bonus for staying through critical milestones. In the final two years of the closure, management people who stayed through a defined release date,

but could not find a role within the Company, received a severance payment. Combined with paid health coverage for a period following separation, this was an attractive incentive.

The leadership team also committed to fully releasing an individual to an internal job transfer in no more than 8 weeks. In many cases the move to a new role was accomplished in 5-6 weeks. If the employee was actively looking for an external role and communicating how their external job search was progressing, the leadership team would work with the individual to accelerate knowledge transfer and move the release date up. By accommodating the external job transition, the employee was able to exit with some severance and the Company avoided unplanned loss of critical knowledge and skills. The key to making this arrangement work was open, ongoing communication and trust between the team member and the leadership team.

Committed to release union-represented employees fairly. Due to the IAM contract, the commitment to the union-represented employees was more complex with the Caterpillar-IAM labor agreement structuring the form and timing of releases. Per the labor agreement, many union-represented employees also had a severance agreement which triggered after a specific release date. Additionally, the Caterpillar-IAM labor agreement had an early retirement option that was appealing for more senior employees who did not qualify for the traditional retirement. As release dates for the union-represented employees were set by work area and not by individual, when a work area ended production, the entire work team was be released.

With the increase in production requirements as the economy picked up, the early release dates for union-represented employees were pushed out. As this was a major source of frustration for individuals wanting to move to other opportunities, a commitment was made to a year-end 2018 release date. If the work area was done sooner than the end of the year, the

individuals would be released on the earlier date. If the individual wanted to stay until the end of the year as had been committed, work would be provided to honor the year-end date.

Leveraged the Employee Assistance Program (EAP) professional. A closure has the potential for significant emotional and physical stress for the team member, co-worker and team member's family. Quantifying the emotional and physical state for an individual is difficult and many people are in denial or not self-aware enough to quantify what they are feeling. For Caterpillar employees, the Company provided a full Employee Assistance Program (EAP) with 24x7 phone access. Additionally, the Joliet plant paid for an on-site EAP professional two days per week with open scheduling for onsite appointments. When production extended an additional month into 2019, the onsite support from the EAP professional was maintained until production ended.

With the deep impact on the people experienced from the plant closure, the EAP professional's role also expanded and changed through the closing. The EAP professional maintained onsite counselling, but the EAP professional also took on a leadership role by providing ongoing training in the monthly AEMs; being a confidant for the leadership team; and providing expanded training and coaching beyond the extended team to everyone on the site.

For approximately the last eight months of production, the EAP topics from All Employee Meetings (AEM) were provided in special one-hour workshops for everyone on the site. Topics started with issues of mental first aid, depression and stress, and progressed through to building resiliency, emotional support and hope. Attendance was not recorded nor was attendance limited. To attend, an individual had to inform their supervisor of their intention so that work assignments could be covered. Communication with the supervisor was not for permission but to ensure the supervisor knew the individual would be out the work area and

alternatives needed to be arranged to complete work assignments. Prior consent was also obtained from the contractor and agency work site managers so their employees could attend.

Severe depression and potential self-harm were addressed through the roll out of program called, “R U OK?,” an Australian-based suicide prevention program. R U OK? teaches individuals how to reach out to each other and ask the simple question, “are you ok?” (“R U OK? A conversation could save a life,” 2019). R U OK? is very straightforward to start and very powerful in outcome. The focus is on getting people to perform “mental first aid,” by sincerely ask each other, “are you OK?.” If the other person doesn’t seem OK, the co-worker does not have to resolve the issue, but the co-worker needs to do something, including telling their supervisor, taking the individual to the medical area or taking the individual to the EAP professional. The purpose of the training was to build skills around caring for each other in the workplace by being willing to ask a simple, but sincere question.

Though survivor’s guilt is more prevalent in a layoff (Appelbaum et al., 1997), survivor’s guilt occurred with some within the team as significant numbers of people left the plant while other team members remained working. Survivor’s guilt is the physical and psychological pain of continuing after one’s co-workers are let go (Appelbaum et al., 1997). Survivor’s guilt has been attributed with loss of productivity, increased depression, reduced risk taking, and overall decreased engagement (Appelbaum et al., 1997). Like, self-harm and suicide prevention, survivor’s guilt was addressed through an open discussion of the issues and through targeted training.

Created development opportunities. In a similar way to the team leads and section managers, team members had opportunities to try different roles as extensions of their existing jobs or to step into new jobs completely. Combined with the training and development paths

established, individuals were able to pursue training in lean, Six Sigma and other technical areas. With the movement of people to new opportunities within Caterpillar and to external companies, the remaining employees had opportunities to learn new skills and then to apply these skills in their expanded roles.

In the last few months prior to closure, twelve career open houses were held onsite for external companies looking for people. For a career open house, the external company would set up a display table in the main employee entry area and staff the display for the shift change in the early morning, for lunch on first shift, and for the shift change in the late afternoon. The career open houses were well received with potential team members able to talk with potential area employers, provide a resume and potentially complete a screening interview. During the final week of production, the individual open house companies were invited back for a multi-company career fair. Fourteen companies attended the career fair and generated a positive response with the extended team. The career fair was scheduled between the last meal event and the last day of work for most of the extended team.

Concurrent to the career open houses, extended team members were encouraged to visit the Workforce Center for Will County, located about six miles north of the plant, for assistance with resumes, job referrals, and interviewing skills training. Additionally, the onsite training and development consultant assisted with ongoing coaching, mentoring and referrals on an as-needed basis.

Went the extra mile. A production plant is a community. Treating people with respect, authenticity and care builds trust and draws the extended team together. For the examples that follow, there were common themes: Adapt the response to what the individual needed; be timely

in the response; perform the action with excellence; and keep some magic in the working relationship by just do something because it is the right thing to do.

Early in the summer of 2017, a dialogue began with the plant manager and the leadership team on how to engage the people on off-shifts. Traditionally, day shift (1st shift) sees the senior team more. Second and third shift often only see senior leaders when something is wrong, and the off-shift teams are not generally as engaged with the business strategy and working plan. As most new people were on 2nd or 3rd shift, the leadership team committed to purchasing and serving lunch on those shifts once per month. Rules were added to the meals: the meal had to be a “good meal”—meaning the people receiving the meal would view it as a nice gesture; the meal had to be fresh as many third shift “meals” are meals cooked and stored from much earlier in the day; the meal would be at their lunch time (2nd shift, 7 PM; and 3rd shift, 3 AM) versus a convenient time for the leadership team; the meal would be on time; the serving team would not run out of food before everyone had sufficient to get to served; and the leadership team would serve the meal, then would sit and eat with the team.

The off-shift meals were never used for presentations or messaging. The only intended purpose for the meal was to serve the off-shift team and spend time together. Also, there were no equivalent sponsored 1st shift meals until the end of production, as the desire was to make the off-shift meals something unique and special for those working on 2nd and 3rd shift. The time between first shift and the off-shift meals was used by the leadership team to catch up with people on the shifts and to address shift-specific issues.

As the plant entered the last year, there was a distinct symbolism around every major holiday and event being the “last” event together—the last Christmas, the last Memorial Day, etc. One of the last days together, was the anniversary of the plant start-up in 1951. As the

plant would not reach a 70th anniversary, the leadership team decided to commemorate the last plant birthday by honoring the Caterpillar team with 35-years of more of service. The fifty plus employees with 35-years of service were honored in the All Employee Meeting (AEM) and given a special gift. The rest of the extended team were given a box of home-made, fresh chocolate from a well-known, 100-year-old local company. The purpose of the event was to recognize the contribution of the most senior employees and to mitigate a concern within the leadership team that honoring the most senior people would get lost as the closure grew closer.

In the spirit of “small things done well,” there were two memorable, additional examples—Friday cookies and the ice cream truck. For the last six weeks of production, the leadership team provided a few hundred cookies across the shifts each Friday to say “thank you” for everyone’s contribution and focus. The cookies were set out at the main entrances for people to take as they started their shift or ended the shift, and the cookies were left out for the first shift lunch. The quantity someone could take was open to the individual and fully honor system.

Post-production, after the union-represented employees had left, there were still months of industrial cleaning and special project in preparation for the exit of the building and the return of the property to the landlord. Much of this work was completed by a third-party industrial cleaning company. With everyone working on the site, there were still 125-150 people working at any given time and as the Joliet factory was not air conditioned, some of the work was particularly hot and dirty. At several points over the industrial cleaning period, there were all plant lunches of simple sandwiches and drinks provided to everyone. On one particularly hot day, the leadership team contracted a full-service ice cream truck to drive through the plant and visit the work crews, providing free ice cream. Everyone was welcome to participate in a lunch or other event, independent of company or payroll. Most of all, these activities were never done

because they were expected. The activities were done because it was a way of saying “thank you” in a tangible, sincere way.

Ended with aspects of ceremony. Companies are rich with symbolism and ceremony in normal operation. As the Joliet plant closure approached, physical plant objects and activities took on added symbolism and ceremony. To clarify definitions, a symbol is something that carries a “powerful intellectual and emotional messages,” something that speaks “to both the mind and the heart” (Bolman & Deal, 1991, p. 248). Similarly, ceremony is a “formal act or series of acts prescribed by ritual, protocol, or convention” (“Ceremony,” 2019).

As the plant moved into the final weeks, closing activities took on aspects of ceremony and symbolism. The following section discusses the closing activities (ceremonies), and where symbolism was addressed. The examples are discussed in the same order as the activities occurred in the closure. None of these activities were called ceremonies during the closure. A specific form of ceremony within the closing process are parting ceremonies (Bolman & Deal, 1991; Harris & Sutton, 1986). Parting ceremonies “help members cope with the affective demands of organizational death by creating settings in which members can provide each other with emotional support.” (Harris & Sutton, 1986). Specific to the Joliet plant, the ending events (parting ceremonies) helped people let go, addressed some of the pain being felt, and provided a distinct opportunity to move forward to something new (Bolman & Deal, 1991). Parting ceremonies, at the most basic level, communicated to the community, internal customers, and extended team that the Joliet plant was closed.

Some specific parting ceremonies that were completed with the closure included: the yearbook project; the activities during the last week of production; and the removal of the American flag and armed services flags from the auditorium wall; and the formal de-branding of

the facility. The flag removal and de-branding were intentionally completed after most of the extended team had left.

Emphasized the last week activities. During the last week of production, everyone came together on 1st shift for a large recognition meal on the final Wednesday of production. On the final Thursday, the career open house was held in the plant with fourteen area companies, and a lunch of leftovers from the previous day's recognition meal. For the last Friday workday, teams were encouraged to host a potluck meal or similar event in their work areas prior to their last "punch out." At end of shift, the leadership team said goodbye to everyone as they exited through the main employee entrance. The leadership team tried to strike a balance for the exit goodbye by being visible and available to the extended team as they left, but off to the side so as not to force an unwanted interaction. The comments from everyone who had participated in the recognition meal, the career fair and final goodbye were very complimentary, and everyone on the site acted with exceptional dignity and professionalism.

Commemorated a last meal together. The last meal together as a plant was exceptionally well received and executed well. Execution was more challenging than planned due to the final meal landing on one of the coldest days in recent memory. With unadjusted temperatures exceeding -20F, many of the catering restaurants only opened long enough to cook the last meal food and deliver the food to the plant before closing for the rest of the day. With the exit of the machinery and equipment, there was seating created in the open areas to serve the buffet meal and to provide family style seating for several hundred people.

Special guests from long-standing community partners joined the extended team for the last meal. Additional key business leaders also joined from local businesses and potential employers (see Figure 14).



Figure 14. “Last meal,” Joliet plant, January 30, 2019. Public domain.

Developed the facility yearbook. In hindsight, one of the most powerful activities was the yearbook project. In the context of ceremony, the idea was to create and print a yearbook like someone would receive in high school. The idea of a facility photobook was not a new idea as some other Caterpillar facilities had created similar photo books prior to closure. What was unique in the development of the Joliet plant yearbook in comparison to other Caterpillar facility’s photobooks was connecting the yearbook to the original “high school graduation” model. As with the development paths, the yearbook activity was viewed by the extended team as a very sensible outgrowth of being in high school and “graduating”.

The process used in developing the yearbook and the quality of the final product was also a significant engagement factor. Two retirees from the facility were recruited back to the lead the “yearbook staff.” The yearbook staff spent eight months collecting boxes of photos and articles from retirees and active employees, and then interviewing and photographing everyone at the plant in their work area on their shift. Special sections of the yearbook were also provided

for long-tenured employees and for multi-generational employee families to create their own custom page for publication. The yearbook was published through a national yearbook printing company like a typical high school yearbook with a hardcover and glossy pages of good quality photos. As the layout and look of the yearbook had been kept secret for the final distribution, the overall quality of the yearbook surprised many employees as they were expecting something more like a coil-bound presentation from a copy shop. Additionally, as people interacted with the yearbook, the final yearbook proved remarkably therapeutic for people, providing a positive remembrance gift and some positive resolution to the closure experience.

In hindsight, one of the smartest moves made relative to symbolism and ceremony was locating the yearbook staff in the front lobby area, when the plant gift shop was closed. It was common practice for a larger plant like Joliet to have a gift shop where employees and visitors could buy Caterpillar shirts, jackets and other Caterpillar-branded merchandise. With the plant closing, the gift shop had been closed when the inventory sold out. As the gift shop was within a secured area, separated from the factory and office in the front lobby area, retirees and other visitors could visit the former gift store area without need of an employee escort, as was required within the factory. With the addition of a very large conference table, the yearbook staff had a very visible location to work and interact with retirees and employees throughout the day, and to let people browse through the significant quantity of historical photos and memorabilia collected, including the original scrap book from the 1951 grand opening.

The yearbook staff also reached out to the two retiree groups that had been historically separated between management retirees and union-represented retirees. The two retiree groups were not adversarial but had not overlapped, developing separately in a traditional union-management environment. The former gift shop area allowed retirees and visitors to come in as

they wanted, and to go through stacks of old photos and memorabilia. Many old photos of an unknown event or person were identified by the retirees. In many cases, the identified person in the old photo had a relative or friend who was a current employee but unaware of the photo. The multi-generational aspect of the photos was later used in the yearbook.

Removed the facility flags. The Joliet plant auditorium had been commissioned as the Veterans' Auditorium due to the construction completing near the time of the 9/11 terrorist attacks. The outside, external wall of the auditorium had a two-story display consisting of an 8' x 12' American flag surrounded by five 3' x 5' armed services flags (Army, Marine, Navy, Air Force, Coast Guard) and an MIA flag. The flags were encased in wood cases with a plexiglass fronts mounted 15-30' up the wall. The original plan had been to remove the flags in their cases from the wall during a formal flag removal ceremony with a military honor guard. Unknown to the leadership team, the flags had been mounted into the cases after the cases had been permanently attached to the wall during construction. To remove the flags, the protective cases had to be opened and the flags painstakingly removed from their mounting while still attached to the wall.

The flags were still removed respectfully following formal flag etiquette but not as part of a formal ceremony due to the amount of time needed to remove each flag from its mounting. As each flag was removed, it was properly folded and stored until the protective case could be removed. Discretely removing the flags after hours and ceremonially destroying the flags would have been easier, but not as respectful nor as appropriate as the donation. Significant time was invested in finding an appropriate home for the collection and properly removing the flags from the wall. Once the flags and cases were removed, the collection was donated to a local American Legion that could appropriately display the flags.

Responded to critical symbolism. Within the context of ending, care was given to understanding critical symbolism of objects that had not previously been significant, and critical actions took on added ceremony as well.

Removed the murals and pictures of people respectfully. As the plant moved to closure, one of the only formally communicated requirements from Caterpillar corporate was to de-brand the facility. De-branding was the requirement to remove all Caterpillar logos, markings and other distinct nomenclature from the facility. The intent was to prevent Caterpillar trademarked material from being resold and to prevent the trademark from remaining on a property no longer occupied by Caterpillar Inc.

Within the Caterpillar Joliet plant, there had been a long picture mural that ran on both sides of the main hallway near the visitor entrance. The mural encapsulated the history of the plant using a progressive timeline from land purchase in 1950 until the current time, using many photos of past and present employees embedded in the mural artwork and adhered to the wall. As the process of de-branding had been communicated to the extended team in All Employee Meetings to start after the extended team was gone, many employees expressed interest in having portions of the wall as the mural contained one-of-a-kind photos of current employees and former employees including family and friends.

Pictures were tagged by individuals who wanted them with the understanding the mural would likely break apart in the de-branding, as the pieces were adhered to the wall. If any portion of the mural could be removed without damage, the employee was welcome to the piece. Because of exceptional care by the de-branding team, the mural pieces were removed without damage, then sectioned by the site carpenter into workable pieces for individuals to pick up and take home (but without any Caterpillar trademarks). The mural was an interesting piece of

artwork for the almost twenty years it had been in place but became a symbol of Caterpillar's presence in the community, and a source of individual pride as the closure approached.

Removed the water tower logo and building logos post-production. As an additional example, there had been a water tank on the plant site for the entire 68 years the plant was in production. The water tower had been painted and repainted many times in 68 years. In the context of de-branding, the water tower logo was removed, the tank sanded smooth and then repainted, but the work was not started until after production ended. In the same way, the large Caterpillar logo on the front face of the building, the logo over the entry doors and the logo on the road sign were not removed until the production employees were gone. This was done to minimize the emotional impact on the employees while they were still working at the plant as the water tower and building signage were very powerful symbols of Caterpillar's presence in the community and their part as Caterpillar team members. Post-production, the removal of the logos was part of the ending ceremony and symbolic of Caterpillar exiting the community, but during production, the removal was viewed as too personal and too emotional an event to occur with everyone still working.



Figure 15. Example of de-branding in process, May 13, 2019. Public domain.

Emphasized respect before expediency. It would have been faster to de-brand while the extended team was still working, but de-branding during the production period was never a consideration. Waiting seemed more respectful for everyone involved. In the same way, tearing down the mural and throwing away the pieces would have been easier, especially when the consensus was the mural could not be removed without significant damage to the pieces. Care was taken by the work crew because of the emotional significance of those pictures embedded in the murals. In some cases, the murals were the only surviving photo of a now lost photo of someone's parent or significant other. Ensuring the mural pictures were treated respectfully and given to someone who could appreciate them was symbolic of the respect and care the leadership team was trying to demonstrate to the extended team.

Published the closure video and song. One of the extended team mentioned receiving a remembrance video from a previous company that closed. The video had been therapeutic for the individual, and the suggestion was to create something similar for the Joliet plant team. From the yearbook project, there were many pictures and stories that were documented during the publication. There was significant content to further pull a remembrance video together.

As with many communities, there was significant internal talent to take on the video project. A Caterpillar employee from another facility had experience producing documentary videos using the "Ken Burns effect" (Toth, 2019) with still photographic images and a unique panning and zooming method. In the spirit of a Ken Burns' documentary, the concept was to pan and zoom through a subset of the historical photos in a fluid, documentary-style video with voice over. With the launch of the project, there was a strong outpouring of ideas and materials with a storyboard developed quickly. The team wrote a script and then recruited a previous senior leader from the plant for narration. The use of the individual's voice was symbolic because that

leader had a very distinct and trusted voice known to the extended team. As the video neared completion, additional talent was recruited to write and record a Joliet-specific “closing song” in recognition of the Joliet plant team. Other existing Caterpillar-specific songs were added to the video, and the video ends with images from the last meal with a rendition of Auld Lang Syne performed by one of the key members of the leadership team. The video was published on YouTube for the benefit of the extended team, and the video was well received, providing personal closure with an effective tribute.

Relevance to Leaders

The ultimate desire of this research would be to avoid plant closures completely. Transitioning to a plant closure should be a last resort that is pursued only after other options have been relentlessly pursued and the impact on all stakeholders understood. The combined model presented in Chapter 5 draws from insights of organizations in decline (Sutton, 1983; Sutton, 1987) overlaid with the management of psychological state change (Schein, 2002; Schein & Schein, 2019), all within the context of a leadership team committed to building and sustaining trust. When a plant closure cannot be avoided, the outcome can be improved through understanding the theory behind plant closures, applying effective leadership methods and through using the needed lessons learned. To drive effective leadership methods, the combined model (see Figure 12 on page 97) is a good starting point but can be further strengthened by applying the 4 I’s of transformational leadership theory.

4 I’s of transformational leadership. As previously discussed, leaders can achieve superior results for the organization through one or more of unique elements known as the 4 I’s: idealized influence; inspirational motivation; intellectual stimulation; and individualized consideration. The four elements can move the leader past transactional leadership to more

effective leadership styles and were specifically leveraged in the Joliet closure by the primary leader and the leadership team.

Idealized influence. With idealized influence, the leader behaves in such a way to become a role model to followers. The leader is admired, respected, and trusted for their character. With idealized influence, the leader considers the needs of others before themselves, is reliable in action and consistent in doing the right thing. Representative examples from the closure included:

Corporate and personal values. Caterpillar has a long commitment to ethical global leadership through the Worldwide Code of Conduct (“Our Values,” 2019), first published in 1974. A leader within Caterpillar is expected to understand and follow the standards outlined in the Worldwide Code of Conduct in all business dealings. Building on the corporate expectations of conduct and values, the plant manager had an emotional connection to the plant and with the extended team, having led the plant previously. Extensive credibility existed between the plant manager and the extended team because of the plant manager’s previous working relationships at Joliet, the plant manager having volunteered for the closure role, and the plant manager clearly committed to stay through closure without an early exit strategy. As the plant manager had been hired into the role with the advice, “take care of the people and everything else will fall into place,” the plant manager had consistently communicated and followed this guidance. These foundations helped define and sustain the primary leader’s sense of “true north” (George, 2010) and what made this an example of idealized influence.

All Employee Meetings (AEM). The plant manager and leadership team used the All Employee Meetings (AEM) to build trust and to foster a sense of consistency, reliability and transparency. The plant manager and leadership team maintained an open communication style

within the AEMs which included actively collecting rumors and concerns circulating within the plant and addressing the issues in a formal question and answer (“Q&A”) session. The issues were written out on a PowerPoint slide as were the formal responses and then presented in the AEM. The purpose was to create accountability with the extended team, ensuring the issues the leadership team thought was critical to address, aligned with what the extended team thought was important. Additionally, it was important for the leadership team to directly address tough issues in a clear, transparent and open manner. Extended team members were able to ask additional questions and to comment on the responses provided. Overall, the transparency of communication was efficient in the numerous issues covered and was effective in trust-building, with the extended team members feeling their issues were being listened to and addressed.

Off-shift meals. The leadership team also used the off-shift meals to build and sustain a trusting, transparent relationship with the extended team. The monthly meals were always well attended with a good quality meal served at the shifts lunch time (7:00 PM for 2nd shift and 3:00 AM for 3rd shift). As was the expectations of the meal, the meal would be on time; the serving team would not run out of food before everyone had sufficient to each; and the leadership team would serve the meal and then would sit and eat with the team. Most importantly, the leadership team always served and then ate last, joining the extended team at open spots in the lunch area. There was not a presentation or structured message other than to serve the shift and to be present with them. The meals were a high point for the off-shifts team members who had not regularly seen the leadership team on their shifts. With the only required attendee from the leadership team being the plant manager, the surprising aspect of the off-shift meals was the strong commitment from the individual leadership team members to being at the meals and engaging with the extended team.

Inspirational motivation. With inspirational motivation, the leader behaves in ways that motivate and inspire others by providing purpose, meaning and challenge. The inspirational motivation of the transformational leader drives a positive team spirit as well as enthusiasm and optimism for what needs to be done. Representative examples from the closure included:

High school graduation as a symbol of meaning. By creating a future state focused on the idea of an approaching high school graduation versus a pending plant closure, the leadership team provided purpose and meaning in a challenging time. Certainly not everyone embraced the idea, but the leadership team built a series of processes and events around the graduation theme which helped many of the extended team to move forward positively. As the graduation theme was maintained throughout the final two years, the extended team also had a steady and reliable framework to build on. The graduation theme would not have been as effective if it had been one of many changing themes and approaches to describing the closure. Also, by selecting a theme that was ultimately positive for most people, extensions to the theme included multiple development paths, extracurricular activities, the yearbook project, employer open houses, career fair, and final recognition meal that were received positively and optimistically.

Six Sigma black belt class. An inspirational motivation example from one of the development paths was the operational excellence training provided. Within the graduation theme, the seven development paths were opportunities for extended team members to gain skills and experience towards a new career future. Operational excellence is a specialization within manufacturing focused on continuous improvement using lean and statistical methods. The statistical training is structured around a martial arts theme with a recognized, significant level of proficiency being the “Six Sigma black belt.” At some point in the early closing process, someone wanted to attend one of the corporate Six Sigma black belt training classes. The

corporate training required a week of training each month for four months at a central location, necessitating a hotel stay for each monthly session. The corporate option would have limited the number of participants significantly due to the travel required, the time away from the plant and the relatively small extended team able to cover extended absences.

The leadership team took on the challenge of creating a modified training program to be conducted at Joliet. The Joliet option required gaining divisional support for the unique option, identifying the needed teaching team, recommissioning a training room at Joliet, and modifying the materials to create a workable training timeline. The final 6-month training program consisted of two identical three-day training classes meeting on different weeks within the month. Either of the two classes could be attended within the month to provide flexibility to those traveling or working through an immediate, job-related issue. The program was enthusiastically embraced with 47 individuals graduating as Six Sigma black belts at the end of the training. As special note was the mix of union-represented employees working side-by-side with their section managers, area managers, support staff and plant manager through the training program.

Homeless shelter. An additional inspirational motivation example dealt with the volunteer activity at the local homeless shelter. For the seven years prior to closure, a small team within the Joliet leadership team purchased groceries each month, then prepared and served a breakfast meal at the local homeless shelter. Two years from closure, recruiting of volunteers was becoming problematic and there was some thought of just stopping “because we are closing anyway.” Because of the leadership team members participating with the 3rd shift lunch, the plant manager scheduled the monthly 3rd shift lunch to align with the shelter service day. As many of the leadership team had a open time slot from the end of lunch (3:30 AM) and the start

of shift (7 AM), there was a captive community of volunteers. Surprisingly, some of the 3rd shift extended team challenged why serving was only a management option, and several union-represented employees became regular volunteers. The original plan was to stop serving at the end of 2018 but there was strong interest in helping the people at the shelter through the winter. The team continued to serve into April 2019 with a mix of retired, job-seeking and active employees.

Intellectual stimulation. With intellectual stimulation, the leader motivates the followers to be innovative and creative. The transformational leader demonstrating intellectual stimulation will encourage followers to question basic assumptions, to reframe problems and to approach old problems in new ways. With the element of intellectual stimulation, there is no public criticism with creativity actively encouraged. New ideas and creative solutions are actively solicited with followers encouraged to try new approaches. Representative examples from the closure included:

Poker chip recognition program. The development of the recognition program to support the “finish strong” theme was a good example of intellectual stimulation. Growing from a discussion between a union-represented employee and their section manager on how to improve product quality, the idea was discussed between various people and then proposed to the plant manager after an AEM. The plant manager liked the idea but challenged that the program was not comprehensive enough and was redundant to other programs. The request was to expand the idea beyond quality and to replace other recognition programs with the one proposed. The quality manager took on the challenge with the original employee and section manager to create, test and implement a comprehensive recognition program that was simple to execute and well received by the extended team. Without the original two people coming forward with their

initial idea and then the willingness of the quality manager to build upon it, an outstanding motivational tool would not have happened.

Skill development paths. As another example of intellectual stimulation, the skill development paths were also exemplary. Connecting to the high school graduation model, the original plan was to focus on two paths—internal and external job opportunities—with the addition of needed training in resume writing, interviewing and networking. Three additional development paths quickly emerged in leadership development, operational excellence and professional credentialing because extended team members asked about additional training, were willing to commitment time and effort in actively participating in the new development paths, and because there was a leadership team member willing to the lead the development path. The final two development paths in getting an education degree or certificate, and starting a business grew out of extended team members suggesting the benefits they had received through further education and completing a business startup that would benefit others. Similarly, extended team members were willing to actively participate and there was a leadership team member willing to lead the development path. The education path was unique because it grew beyond a traditional view of getting a degree or certificate to include financial health education, including basic finance, budgeting, investing, and retirement planning. No suggestions were ignored relative to development options if a minimum of three people could be recruited to actively participate and the development path was loosely related to something job related. The job-related requirement was to ensure the initiative was reasonably aligned to helping the most people.

3D printer training. One of the leadership team ran across a relatively new industrial 3D (“additive manufacturing”) printer on the Caterpillar corporate surplus list and asked if the printer could be relocated to Joliet for skills training. Adding assets to a plant in a closing is

atypical but the idea fit within the “extracurricular activities” of the high school graduation model. Also, this type of industrial printer was cutting-edge technology and once installed with the proper training, the Joliet plant could offer technical training onsite to the extended team that few technical schools could offer. Securing the industrial 3D printer required senior leadership approval and some technical assistance in transportation, installation and startup. As the leader who had created the 3D printer proposal found a new role within Caterpillar, the printer project was moved to two additional people, one of which also secured a new role within Caterpillar shortly after the printer was installed and training started. The third individual to take on the project, built on the work of the previous two leaders’ work and created an outstanding 3D printer training environment, starting with the concepts of 3D printing, moving to printer operation, and finally, designing for 3D. The 3D learning area was open to all employees & contractors, helping over a 100 people learn and apply the technology for new job roles, and 10 developing high-level mastery of additive manufacturing and 3D printing. On closure, the printer was moved to the new startup operation.

Individualized consideration. With individualized consideration, the transformational leader understands and adapts to each follower’s needs for achievement and growth. The transformational leader demonstrating individual consideration acts as mentor and coach, focusing on developing the individual followers to higher levels of potential. The transformation leader is an effective listener, accepting and encouraging differences in followers. Individualized consideration encourages the transformational leader to delegate tasks to the followers in order to further grow and develop their capabilities. Representative examples from the closure included:

Rehired-retirees. As previously discussed, the closure transition would not have been as successful without the rehired-retirees. There were many rehired-retirees available due to the

long operating tenure of the plant, but the final selection of retirees was very focused with only individuals with strong skills, talent and motivation selected. Though all of the rehired-retirees were motivated and professional, different approaches and management styles had to be used with the individual rehired-retirees as they had distinctly different styles and temperaments.. Though challenging at times, by being an active listener towards the rehired-retirees and focusing the rehired-retirees in their areas of strength, the leadership team was able to leverage these individuals effectively in ensuring the safety of the extended team, maintaining exceptional quality levels, and facilitating the transition of incumbent leaders to new roles outside of Joliet.

R U OK? The challenge with ensuring emotional and physical well-being within an extended community is to be sensitive to each person as a distinct individual. This required the plant manager and the leadership team to balance between accepting people as they were while actively enforcing expectations and standards within the community. As the potential for depression and potential self-harm were very real concerns during the closing process, an Australian-based suicide prevention program, *R U OK?* (“*R U OK? A conversation could save a life,*” 2019), was implemented throughout the plant. As previously discussed, *R U OK?* taught individuals how to reach out to each other and ask the simple question, “are you ok?” *R U OK?* was a very straightforward to start and very powerful in outcome. The focus was on getting people to perform “mental first aid,” by sincerely ask each other, “are you OK?.” If the other person did not seem OK, the co-worker did not have to resolve the issue, but the co-worker needed to do something, including telling their supervisor, taking the individual to the medical area or taking the individual to the EAP professional.

Individualized consideration was apparent in several ways. First, the plant manager was an effective listener, accepting and encouraging differences in followers. The plant manager

understood that some individuals would struggle more than others with issues of depression and emotional health and a professional program was needed. Second, the plant manager knew developing and implementing an emotional health program was beyond the leadership team's capability. The plant manager was comfortable working with the EAP professional and the EAP professional's extended network to recommend an effective program. The implementation of the program was well received by the extended team and the program was a growth opportunity for the EAP professional. Finally, the EAP professional not only implemented the R U OK? and then extended the program to other issues like sorrow, anger and depression; but expanded the coaching to new topics like resiliency, mindfulness and hope. Individual consideration was present when the plant manager asked the EAP professional to develop something to address emotional health and then further when the EAP professional, using their unique skills and experience, developed a broader and more tailored program of help.

Guidance counsellor. Continuing the high school graduation model, a third-party consultant was recruited by the plant manager to take a project leader role that eventually grew into a guidance counsellor role. The plant manager had met the consultant several years earlier on a plant visit to Joliet, and the plant manager was aware of the consultant's experience in project management, training and development. As the consultant proved more and more capable, the plant manager asked the consultant to shift from managing specific projects to taking on an additional, broader coaching and development role. Through the consultant's diligence, compassion and concern for the team, the consultant earned a trusted role with the leadership team which helped numerous people, with many continuing to leverage his expertise and guidance post-closure. The role, like a beloved guidance counsellor in a high school, helped transition 400+ employees and contractors through job fairs, learning events, resume coaching &

mentoring. Over an eight-month period, the guidance counsellor launched 12 job fairs and 24 learning events with numerous individual coaching and mentoring sessions. Individual consideration was present through the active dialogue between guidance counsellor and plant manager, and the plant manager using this dialogue to leverage the consultant's unique skills, knowledge and experience to further grow and develop the consultant's capabilities and to provide a unique portfolio of resources to the extended team.

Lessons learned. The application of the lessons learned within the remainder of this research study provide additional insights. The lessons learned are not intended to be comprehensive but provided examples to generate new ideas for the leader on what could be done and what should be avoided. Relative to the use of the action research method, critical colleagues provided further perspective, refining lessons learned and limiting researcher bias.

Lessons learned are “knowledge or understanding gained by experience. The experience may be positive, as in a successful test or mission, or negative, as in a mishap or failure,” (“NASA-only,” n.d.). In capturing lessons learned, the intent is to collect and reflect on significant technical and experiential insights with the goal of improving future operations. By “significant,” the action or lack of action had a demonstrable impact on the outcome of a plan or scenario. Lessons learned can be concerned with what went right or wrong, as well as what is worth preserving or changing.

In some cases, a lesson learned has value for future application as a best practice. Best practices differ from lessons learned in a few distinct ways (Sommers, 2009). Lessons learned are captured and documented from previous experience with the focus on understanding what to do, or not to do, based on that experience. Best practices are the recommended way of doing something going forward. Lessons learned focus on significant experiences with the intent of

gaining insight or knowledge from what happened. Best practices are more structured and formal, defining the optimal result from the view of a wider community of practitioners. A lesson learned is worthy of understanding, while a best practice is worthy of adoption.

In the section that follows, lessons learned have been captured from the Joliet plant closure and then placed in the general categories of the closing process; the leader and leadership team; and the extended team. A brief example or comment has been added to each general learning, providing more background or detail. For an organization challenged with a plant closure or significant restructuring, many of these lessons learned have merit as best practices. The final determination of best practice is organization dependent, with a structured review of the lessons learned against the needs and culture of the organization required.

Closing process. The following lessons learned discussion focuses on the closing process with emphasis on improving the outcomes of closure; implementing structure over relationships for the new leader; leveraging Employee Assistance Program resources; understanding the power of words, symbols and ceremony; leveraging effective communication; and valuing several other activities that were implemented. The lessons learned are from across the plant closing experience including the primary leader, leadership team, and extended team.

Improve the outcomes. The following items are grouped into activities that will improve the overall quality of the plant transition to closure.

- Hire an executive coach. Contract for a formal, executive coach for guidance and advice through the closure for the plant manager and leadership team. Evaluate the different coaches available, selecting a coach with prior plant closure experience and with a compatible leadership style. A coach was not identified in the Joliet plant but would have been helpful to the plant manager and leadership team.

- Leverage previous lessons learned. Review lessons learned and playbooks from previous plant closures. Specifically identify playbooks which discuss change management issues and other people-related issues beyond the general mechanics of plant decommissioning. There were no previous, documented lessons learned available for review during the Joliet plant closure.
- Develop a formal change management strategy. Develop a formal change management plan using a change management consultant. From this research study, understand the dynamics of the closure model, the change management model and importance of leadership style. Ensure the leadership team is trained on formal change management methods. Understand the consequences of poorly executing the change management process on the emotional and physical well-being of the team.
- Manage the known issues that will come. Plan for and manage through the key “expects”—rumors, resistance, sadness, moving emotions and morale shifts, and denial from the extended team moving through the transition. The “expects” will occur throughout the plant closing and should be planned for accordingly.
- Capture lessons learned. Create a process to stop, reflect and discuss what is being learned and experienced at major milestone points through the closure. Capture the key lessons learned within a formal process as the plant transitions to closure. Reflect on why these lessons are important and the value of what has been learned for the remainder of the project and for future projects. Make the final lessons available to others. Pay special attention to the time around the actual closure as these lessons may be lost in the ending activity.

Emphasize structure before relationship. In a high-impact role, the leader may be tempted to spend the most critical time upfront “getting to know the team.” The people side of leadership is important but implementing a work structure as the priority is critical.

- Maintain high standards. Maintain core standards and processes until the plant is closed. Do not trade perceived cost savings for reduced standards. Drive more clarity on expectations, priorities and standards. Foundational processes for the Joliet plant included layered coaching audits, housekeeping standards, general standards, daily walks, etc.
- Drive situational awareness. Drive a “See something. Say something. Do something.” mindset. Actively engage the team in being aware, communicating and acting on issues related to the plant, personal property and the team. Discuss all incidents, even small incidents of graffiti, vandalism and petty theft. If unaddressed, incidents grow into larger issues.

Leverage the Employee Assistance Program (EAP). Many companies have EAP resources available to their employees through a combination of on-site and remote services. A standard practice during a major change initiative would be to remind employees about the EAP services. More can be done to integrate the available EAP resources into the change management strategy.

- Leverage the existing Employee Assistance Program (EAP) if the site has existing EAP services. Invest the time in understanding the structure and resources available in the current Employee Assistance Program. Then fully leverage the plant Employee Assistance Program, EAP professional and corporate support resources.

- Pursue on-site EAP support. Contract for on-site EAP professional services until production ends and most people have left. Evaluate whether a part-time resource is enough for two to three days per week versus a dedicated resource.
- Partner with the site EAP professional. Integrate the EAP professional into the leadership team and the plant's core processes including onboarding, employee transitioning, and ongoing communicating. The scope may include employee meetings, facility electronic communications, posters, etc.
- Make EAP emotionally safe for the team. Create an environment of transparency and safety for EAP services within the extended team by introducing the EAP professional to the team at All Employee Meetings (AEMs); encouraging "meet and greets" after the meeting; and providing an ongoing EAP presentation timeslot during the meeting. Keep the EAP professional visible and involved in critical meetings and events.
- Expand EAP workshops beyond the immediate team. Sponsor voluntary EAP workshops for all plant personnel across the shifts to cover the materials in more depth. Work through the necessary contractor and agency leadership to alleviate co-employment concerns.
- Keep topics of mental health in front of people. Implement a "mental first aid program" like "R U OK?" Once R U OK? has taken root, add workshops and seminars on topics like sorrow, anger and depression; and then topics like resiliency, mindfulness and hope. Keep the programs voluntary and make them available to anyone on the site including non-employees and contractors.

Understand the power of metaphor, simile, ceremony and symbolism. Words and images are powerful communication resources with the team. The following points offer additional insights on symbolism, ceremony and words.

- Be aware the common can become strongly symbolic. Understand the power of symbolism especially in the last year of operation. Normal activities can take on new meaning as the plant approaches closure. For example, the removal of logos and signage could be symbolic of loss to some people.
- Understand existing symbolism and ceremony. Quantify and then discuss what symbols and ceremonies already exist within the plant. Examples could include murals, pictures, flags, conference room names, retirement ceremonies, etc. Discuss how the existing symbols and ceremonies should be addressed.
- Be sensitive to the “lasts phase” in the final closure year. “Lasts” is intentionally phrased, as every holiday and significant event becomes the last one—for example, in the last year of operation, the plant will have “the last Fourth of July,” “the last Memorial Day,” etc.— a collection of lasts. Emotions may amplify during these periods especially if these dates are not discussed, worked through and potentially given focus.
- Look for a message that resonates in the form of a simile or metaphor. Find a theme that resonates with people and motivates them toward the future state. For the Joliet plant, changing one of the core goals to “Finish Strong” proved helpful in focusing the team. The wording was developed through a number of people throwing thoughts and ideas around until something resonated. In a similar way, the “last two-years of

high school” simile helped people shift their closure thoughts to a more hopeful, future view.

- Invest in yearbook and video projects. There was immeasurable value in having the yearbook team engage, interview and photograph everyone in the plant who was open to the activity. The video project allowed the leadership team to leverage untapped creative talent within the extended team. Do not underestimate the amount of talent within the organization that goes beyond the plant’s operating purpose. There are musicians, writers, poets, etc. available if the leadership team is willing to ask and then use those resources.
- Evaluate the following practices from developing the yearbook and video projects.
 - Be patient with people. Not pushing people to be interviewed or photographed during the development of the yearbook was helpful. Several people initially declined to be included in the yearbook but came back later and asked to be included. By not pushing, the project won several people over later.
 - Record the best interviews. The option to record select yearbook interviews for the plant video was missed. In hindsight, recording the interviews with the permission of the participants would have further captured memories and experiences of value to the wider team.
 - Treat old photographs as treasure. Giving the photographs from the yearbook and video projects to interested team members, increased respect and built trust. There were thousands of pictures obtained and reviewed from plant filing cabinets, storage archives, and desk drawers as well as from individuals’ basements and attics. As with the mural, a respectful home was found for all

the remaining media versus throwing the materials away after exhausting options with the Caterpillar Museum, the Caterpillar corporate archives, and the Joliet Historical Society.

Communicate continuously. The amount of communication needed is often underestimated. Whatever level of communication the leadership team believes is needed should be doubled or tripled. In the absence of communication, people will fill in the missing pieces with rumors, stories and unrelated facts.

- Control the messaging proactively. Many of the issues of depression, sadness, anger and denial are going to be experienced within the extended team. Address the issues directly with the team in a direct, compassionate and supportive way. Relative to rumors and potentially tough questions, address every question in a direct manner. Leverage the communication channels in the plant to reinforce the messaging—AEMs, stand up meetings, newsletters, talking points, kiosks, etc.
- Answer rumors and tough questions. Build a “rumors and questions” timeslot into the All Employee Meetings (AEM). Collect questions and rumors ahead of time from the leadership team and extended team. Prior to the AEM, write out the rumor or question as it is circulating in the plant and write out the response. Review the questions and responses with the leadership team prior to the broader meetings to ensure the question is properly captured. Review the responses with the subject matter experts to ensure the answers are accurately framed. In the AEMs, proactively present the specific rumor or question with the response on a PowerPoint slide within an ongoing “rumors and questions” presentation time slot.

- Communicate clearly and consistently. A consistent format and structure to the messaging will help in communicating with the team. Every communication with the team requires the individuals within the team to interpret the format and to understand the message. Changing the format will drive energy into understanding the new format that is better served in understanding the message. This assumes the format is clear and concise. If the format is poor, absolutely make improvements.
- Share more information but manage confidentiality. Develop and use talking points, sharing more than seems necessary to the leadership team. Written talking points clarify the message and help the leadership team to know what can and cannot be shared. Written talking point can be published in a confidential document for the team with the understanding the materials should not be forwarded or printed. A confidential document with a structured process for use is better than trying to communicate key points across leaders by word of mouth. The risk of confidentiality being abused is less than the ongoing issues from miscommunication.
- Tell the truth. Not knowing the answer to something often happens. Communicate the answer is not known, whether a follow up is coming at some point, and follow up later. If an answer cannot be given, communicate the reason and follow up on commitments. As many of these questions fall under “tough questions,” expect the question and develop a written set of talking points ahead of time. A prepared, practiced response will reduce the appearance of “dancing around” on an issue.

Draw on additional valued activities. Other activities and events of note, captured in the plant closure lessons learned:

- Structure on-site career exploration opportunities. In the last year before closure, twelve career open houses were held onsite for individual, external companies looking for people. In the last week of production, a career fair was held with the individual companies from the career open house plus a few additional new companies. Hosting the events on site created goodwill with the employees and a positive energy on the days the events occurred. Work with the local Workforce Services Division office to provide information sessions on unemployment insurance, Trade Adjustment Act (TAA) benefits (if applicable), and other services available at the Workforce Center.
- Provide organized opportunities for learning and development. The leadership team elected to create training and development paths for the extended team. All training and development paths were voluntary and established in response to team members expressing interest in or needing help about something. The first development paths were about finding work within Caterpillar and the external job market around Joliet. Later development paths emerged as team members asked about different training options in leadership, operational excellence and their professional disciplines. The final two paths were added as people wanted help in evaluating options about returning to college or starting their own business. Paths were established when there was a critical mass of interested team members and a leader willing to lead the initiative. The value of the training and development paths was in letting team members explore future options in an emotionally safe environment; the convenience and minimal cost to the team members; and the ability for the team members to productively channel stress towards a future role.

- Organize off-shift meals. Investing time with the 2nd and 3rd shift teams on their shift over a meal, provided and served by the leadership team, was an outstanding experience for the extended team and the leadership team. The meals allowed everyone to get to know each other as individuals, where traditionally the off-shift people are not well known by the leadership team. Showing effort by being on the shift during the shift's normal lunch time with a fresh, generously portioned, quality meal built and sustained trust between the extended team and leadership team. Keeping the meals "presentation free" also reinforced the quality of the time together and eliminated concerns from the shift about a deeper, hidden agenda from the leaders. Staying on shift for the time between the meal and day shift also helped the leaders to connect further with the team and to resolve issues unique to the shifts.
- Make the last meal exceptional. The opportunity to sit together for the last meal was powerful. The meal was well catered using local restaurants that had previously provided off-shift meals. The appearance and execution of the event was well done as tables and chairs had also been catered in to facilitate family-style seating. The quality of the food was exceptional with eight local restaurants creating a large progressive buffet for 500+ people. The core team behind the meal ensured everything was executed well including to-go boxes, meat cutting station and desert table. With several local business leaders and community VIPs, the extended team were highly complimentary of the event and of the commitment from the leadership team. The core themes of excellence, generosity, thankfulness, recognition and service made the event high impact.

- Volunteer together. Monthly for over seven years prior to closure, the Joliet plant had purchased groceries and then prepared and served a breakfast meal at the local homeless shelter. This required a volunteer team of 4-5 people each month to buy the necessary food ahead of time, meet at the plant at 4:45 AM, start cooking by 5:00 AM, to serve by 6:00 AM and return to the plant by 7:15 AM. The volunteer pool had consistently been 8-10 management people but was waning by mid-2017. There was some thought of just stopping “because we are closing anyway.” Some of the 3rd shift team challenged why serving was only a management option, and several became regular volunteers. The original plan was to stop serving at the end of 2018 but there was strong interest in helping the people at the shelter through the winter. The team continued to serve into April 2019 with a mix of retired, job-seeking and active employees. The core lesson was volunteering and helping others, brings everyone closer together as co-workers and friends in a spirit of humility and appreciation.
- Keep exceptional resources to do special activities and events. In the Joliet plant closure, there was a focus on getting the plant closed per the timetable without excessive costs. In that context, focusing only on production-related spending could have been rationalized. By being bottom-line focused only, the positive impact on morale and engagement would have been missed. In the Joliet plant closing, resources were contracted to do the yearbook project and to manage the completion of some important projects. As the individuals contracted were of exceptional talent and flexibility, those individuals continued to help with high-engagement events and special projects where the resources would not have been available. Having these

exceptional people also allowed incumbent team members to transition out of the plant faster than plan, offsetting the incremental contractor expenses.

- Focus on engaging the team and the funding will often follow. In the closing budget plan, there should be some funding for special events through the closing period, though many of the more effective events are of minimal cost. There will also be some level of inefficiency and incremental cost that need to be planned for as production slows and then stops. These incremental costs should be conservative. If the team is engaged well, there will be enough funding to offset many of the people events because the team will perform better than expected and not all the incremental funding will be needed. If the team is not well engaged, much of the incremental costs budgeted for will be needed due to inefficiencies and other issues.

Leader and leadership team. The following lessons learned section focuses on the traits and behaviors that make up the character of the leader; the role of the leader relative to functions and actions; and how resiliency helps the leader in managing the stress of closure. The lessons learned are drawn from the primary leader and the individual leaders within the leadership team.

Traits and behaviors of the leader. George (2010) talks about leadership authenticity, the trueness to self. The lessons learned below all center on “who” the leader is, and the traits and behaviors that were of note in the plant closure.

- Move past transactional leadership. A purely transactional leadership approach to the closing will get the tasks done but will not fully address the deeper people issues. A transformational leader will drive needed process development, in the absence of a structured playbook but is at risk for drifting into toxicity without embracing the 4 I’s.

An ethical leader will also drive process development as well as maintain a people-based, ethical self through the transition (George, 2010).

- Understand the adage: “be thick-skinned and tender-hearted or you will become thin-skinned and thick-headed.” In a closure, it is easy for a leader to get tunnel-vision around the closure and to forget about the needs of the people being impacted. With an increasingly narrow focus on the tactical activities required for closure, it is equally easy for a leader to become self-centered and self-absorbed. In dealing with the extended team, the leader then becomes overly sensitive to criticism (“thin-skinned”) and unable to receive the needed feedback to regain perspective (“thick-headed”). In times of significant emotion and impact, a leader needs to understand criticism will happen, but the criticism is from the anxiety and fear from the closing activities and not personal. If the leader can let the criticism “roll off” (“thick-skinned”) and to focus on serving the team passionately and compassionately (“tender-hearted”), the team will respond positively over time.
- Avoid self-pity. The role of plant manager is a privileged role as is the opportunity to be a leader within the leadership team. The leaders in a plant closing are not likely to be a worse position financially or career-wise than the individuals on the extended team. No matter how frustrated, statements from leaders like “well, this isn’t good for me either” or “you people don’t understand how hard this is on me” will be received poorly.

Role of the leader. According to Kouzes and Posner (2002), the role of the leader is to model the way forward, inspire a common vision and encourage others to act. Similarly, advice given the plant manager early in their role was, “take care of the people and everything else will

fall into place.” The leader’s role is fundamentally about what the leader does. Within the plant closing, there were several lessons learned captured around the role of the leader:

- Drive excellence. Closing is not an excuse for poor performance or low standards. The leader must attain and sustain high standards. Standards of excellence need to be clearly communicated, measured against and driven forward. The leader needs to be visible, spending time on the plant floor every day with the people doing the work and reinforcing the standards and expectations to the team.
- Address underperformers. In any extended team, there are often a handful of difficult or underperforming employees. Leaders needs to address underperforming team members directly by holding people accountable to set standards of performance and the team’s committed goals. Leaders should not create rules and procedures for the majority to follow, when the root issue is only a handful of individuals that need to be addressed.
- Include the larger leadership team. The primary leader needs to avoid becoming isolated and authoritarian. The primary leader needs to include the leadership team in decision-making including being open-minded to new ideas and new ways of doing things. The trust of the team will grow when the leader steps out in trust with the team.
- Manage the response. At times, a leader may feel attacked or “ambushed” by a question in a large audience setting. Though not pleasant, emotional questions are to be expected, and can often be planned for using talking points and focused preparation. The challenge for a leader is to avoid taking tough, emotional questions personally. These type questions happen for many reasons, and it is important for the

leader to manage through the immediate response and then reflect on the issue behind the question. With the immediacy of the question, the leader needs to remain composed and reasonable, and work through a professional response. There is often substance behind the emotion, so some reflection and deeper inquiry is merited after the immediate incident.

- Understand the role of plant manager. The leader is ultimately the Company's senior representative. In the view of many people, the leader is directly "messing up" everyone's life through the closure. The leader needs to separate their role as the leader from their identity as an individual. The plant manager may be liked as an individual, but the plant manager should not expect many kudos for being the plant manager through the closing.

Resiliency. Boyatzis and McKee (2005) discuss the need for resilient leaders who are emotionally healthy, able to effectively manage through the significant stress of leadership. In a plant closing, the stress is significant on everyone involved, and in some forms, more so on the leader. The following lessons learned capture the aspects of resiliency found useful in the Joliet plant closure.

- Remember HALT. The HALT framework is used in decision making and self-care ("HALT: The dangers," 2019). HALT is an acronym that stands for Hungry, Angry, Lonely or Tired. When present individually or in combination, the four aspects of HALT create an environment of poor decision making and self-care. Relative to the HALT framework, a leader should avoid making a significant decision or engaging in a tense situation when there is a significant physical or emotional gap ("hunger") in their life. When allowed to get out of hand, hunger can lead to problematic decision

making. Though anger can be a healthy emotion when expressed constructively, leaders can make poor decisions when the anger is inappropriate, destructive or harmful. Similarly, loneliness addresses feelings of isolation or emotional distance from others. When isolated or distant from co-workers and friends, leaders can make very poor decisions and practice equally poor self-care. Finally, the concept behind tired is in the context of being overloaded and overwhelmed more than being sleepy. The leader making decisions when exhausted can be as effectively impaired as someone under the influence of alcohol or drugs.

- Practice self-care. Leadership roles during a plant closing are tough but can be navigated with help. Maintaining a positive attitude, staying healthy, and having proper perspective of what is going on is critical. Drawing on a small group of trusted confidants will help with attitude; exercising and eating wisely will help with health; and keeping a journal with time for daily reflection and contemplation will help with perspective.

Extended team. The following lessons learned section focuses on opportunities to influence and improve the extended team. The lessons learned are in two distinct areas: the organizational structures and policies needed to engage the team effectively; and the emotional foundations needed to promote a healthy and dynamic work climate.

Organizational structures and policies. The organizational structures and policies included using financial incentives with team members for retention; releasing people to new opportunities quickly; and utilizing rehired-retirees for core functions, coaching and job transitions.

- Use financial incentives. Having financial incentives for people to stay was effective and important in retaining the needed people. At the start of the closing process, the use of retention bonuses for key subject matter experts and critical early team members were needed to keep people on the team and fully engaged. At the end of the closing process, early retirement options for the union-represented employees and severance payments for various team members were needed to keep people on the team and to control the timing of exits.
- Release people quickly to new jobs. The commitment to release people quickly, if they got a new job, was also effective in retaining people and maintaining motivation. Committing to release anyone from the leadership team within eight weeks of an internal job offer, and then improving from that duration, was an effective motivator. Committing to work through the timing of release dates for people on external jobs was also effective. The individual had to be willing to step out in trust, communicating their job-hunting progress and trusting the leader to beneficially act towards the individual. In turn, the leaders had to respond in a trustworthy manner, or the people would stop communicating.
- Utilize rehired-retirees. The primary leader and leadership team need to formally work through the staffing plan needed through closure. There can be a tendency to save money by only staffing for the minimal number of people needed versus providing some buffer to allow for attrition. As the incumbent team get nearer to closure, individuals want to move on to other opportunities, and releasing the entire team in a limited window will overload the ability to transfer or re-employ individuals effectively. Rehired-retirees were leveraged in the Joliet plant closure

successfully. The rehired-retirees came into critical roles with significant experience, knowledge and flexibility. The rehired-retirees also allowed for quick, selective, targeted recruitment for specific skills, temperament and style.

Emotional foundations. The emotional foundations included providing people emotional space as the plant progressed through the closing process; practicing ongoing, sincere recognition; and understanding the backlash that praise towards leaders can create during the closing activities.

- Provide emotional space. Everyone buys in at a different rate and to a different depth with change. For leaders the challenge is to give people time and space to get on board with activities while maintaining structure and standards. Similarly, team members need to recognize that everyone is at a different point in the journey. For example, some people would not have their photo taken for the yearbook, other people would not participate in training options, and others would not attend meals. Patience with the individual team member, gave many people space to come around and join later.
- Practice ongoing, sincere recognition. Creating and implementing a simple recognition program that was low-key and effective, tied to the “Finish Strong” theme was exceptional. The poker chip was easy for leaders to care around in a pocket, and equally easy for a leader to recognize someone with a simple “thank you.” The extended team liked the process because it was simple, the process encouraged leaders to recognize people for going “above and beyond” daily, and the recognition was not overwhelming. The recognition process reinforced the “Finish Strong” theme while also reinforcing the leadership team’s commitment to timely feedback

and recognition. Post-closure, many team members kept a poker chip as a reminder of the Joliet plant.

- Understand the backlash from praise of leaders. Praising someone in an extended team setting, especially if the individual was from the leadership team, for their impact on how well the plant closing is going will cause a backlash. The closure may be going exceptionally well, but the closing is too personal and too emotional for people to comprehend an immediate “thank you” to any leaders. People may come back months after the closure and be appreciative, once they have had a chance to move on to something else. There are people silently “holding it together” in the extended community, and public recognition will trigger a strong, potentially unprofessional, emotional response from someone. As a specific example from the Joliet closure, the leadership team recognized the plant manager with a surprise gift in an AEM for the plant manager’s commitment to the team through the closure. Not surprisingly, the gift and presentation did not go well with many people in the room for the reasons previously discussed.

Recommendations for Practice

The results presented in this dissertation and preceding considerations in this chapter suggest several practical implications. The personality of leaders and followers influence leadership behavior, motivational constructs, performance and leader-follower relationship during plant closures. As for recommendations for the future researcher and practitioner, the following were the specific recommendations of practice based on this study:

- **Hands-on example of action research in practice.** Specific to this study, action research provided a unique tool for reviewing, reflecting and capturing lessons

learned from a significant work experience for the researcher. The process of reviewing, reflecting and capturing / acting (improving) provided through action research is a best practice for improving effectiveness as a leader in any significant role.

- **Practical example of what “ending well” / “finishing strong” looks like.** Future non-profit leaders and entrepreneurs will, at some point, encounter organizations that have outlived their usefulness and should be repositioned, merged with another organization, or ended. This research study provided many practical lessons learned that can be applied in an organization facing decline.
- **Relevant example of the use of critical colleagues in the discussion, observation, reflection, and improvement cycle.** The use of critical colleagues proved insightful and helpful with the action research method. For the researcher, this was the first-time applying action research, as well as using critical colleagues. Having used the method, building in structured cycles of reflection and feedback with external, trusted colleagues is an imperative in future work. Leveraging external, structured methods to improve the research while conducting the research are powerful and subtle, and not readily obvious to researcher and practitioner.

Chapter 6 - Conclusions

“Nothing personal, it’s just business.” – A phrase that should never be uttered in the professional world.

- Otto “Abbadabba” Biederman, Accountant for American organized crime

General Comments

A few concluding thoughts on this research study, beginning with the quote from Otto Biederman above. Biederman was an accountant of some reputation who became part of the Dutch Schultz organization. It is Biederman who is supposed to have first said, “nothing personal, it’s just business,” (Spencer, 2016). The quote has been in the mind of the researcher throughout this study because of the prevalence of the much shorter statement, “nothing personal, but...” and the likelihood that whatever follows the “but...” will be very personal and very painful. Plant closures are by nature painful. There is no “good” plant closure or mass layoff. There are only less painful ones. And though a relatively new phenomenon (Friedman, 1970)—plant closures previously only occurred as businesses moved through the business cycle and a bankruptcy was pending—someone just entering the work environment is much more likely to be directly impacted by a plant closing or mass layoff over their coming career than their parents or grandparents.

As this research study discussed, the impact on people unprepared for the closure can be severe emotionally, physically and mentally, immediately following the plant closure, but also for potentially years to come (Browning & Heinesen, 2011; Manheim, Moore, Grunberg, & Greenberg, 2003). All non-profit and for-profit leaders should strive to avoid closing a business or organization in pursuit of short-term profits when the organization could be made healthy again with some focus and energy. Where the organization cannot compete, and the best option is to pursue a long-term solution that includes closing an existing operation, the leaders have a responsibility to assess the impact of the closing on the stakeholders (community, suppliers,

employees and families) as well as the impact on shareholders. When the path forward requires the closure of part of the organization, the leaders can certainly make the transition less painful and less ugly with focus, commitment and work.

The goal of this research was to provide lessons learned on how the pain and ugliness can be reduced. This research was focused on one specific closure and how that closure tied back to the theory and practice. There are other examples of plant closures that a leader could explore and other theories and practices that could be applied. The responsibility for that future leader and leadership team is to understand what they are ultimately driving and to commit to making the transition less painful for all the shareholders involved. The challenge to future leadership teams is understanding the true, final state is NOT the closure of the plant but the proactive transitioning of the team to better futures WHILE closing the plant.

In this remaining chapter, there will be a few topics covered briefly—a discussion on the items identified previously by the critical colleagues that are of significant value to the body of knowledge but could not be worked into the existing structure of the research study; the limits to this action research study overall; options for future research, also developed through the action research method with the critical colleagues; and future implications from this research.

Critical Colleague Feedback

The following items came directly from the feedback cycle with the critical colleagues. The items requiring further review were grouped into five broad areas that aligned with the materials within the research study but were issues that could not be quickly edited into the study with a simple addition to a paragraph or quick edit.

Caterpillar corporate role. The research study did not discuss what support resources were available to the plant manager and leadership team during the closure. Some critical

colleagues felt a window of learning had been missed at a corporate level as lessons learned were not directly captured and leveraged for future organizational changes. Others critical friends wanted to understand how Caterpillar might specifically use this study.

One of the Caterpillar's human resources (HR) executives was invited to participate as a critical colleague and returned the consent form. The draft paper and presentation as well as the final versions will be shared through this HR executive. The presentation and paper will also be shared by the researcher with other key executives once the dissertation is completed.

Caterpillar is like other organizations. There is no direct mechanism for sharing lessons learned in a closing activity. The reason the researcher pursued this study was to provide these lessons learned within the Company and to other interested organizations. A window of opportunity was certainly lost, but this is no different than many other organizations that wish to push through the issues of a closing. This research paper will be an available resource should a more in-depth dialogue be needed.

As the primary leader of the closure, there were formal change management expertise available within the Company that could have been pursued during the closing and have been pursued on other projects. It was only in hindsight that it was obvious that the same change management resources used on new product introductions and new process introductions would have been equally valuable in the closing process of a major plant.

Researcher bias. A few critical colleagues asked if there was potential bias present as the closure had been portrayed in more positive manner than would be the case with a potentially more removed researcher. Specifically, there was the direct request for feedback on what did not go well in the final two years.

One of the reasons critical colleagues were used in action research was to help identify and minimize researcher bias. The likelihood of bias is a distinct possibility in action research, as the principle research inserts themselves into research being personally experienced or recalled. The research study does portray the closure and the closing experience in a “positive light.” From the perspective of the primary leader as researcher, the effectiveness of the closure far exceeded expectations and the experience, though bound into the end of a historic facility, was personally rewarding and purposeful. The source of purpose came in helping the extended team make the shift from the final state being the plant closure to the final state being their next career opportunities.

This does not mean this same message would be echoed from the individuals in the extended team experiencing the closing. The research study did not conduct interviews or try to capture the voice of the individual workers. Pursuing this direction of research would have been difficult with the researcher in the role of plant manager and would have potentially taken away focus from the transition work with the team on closing. As a follow up study completed internally to Caterpillar, a structured collection of interviews and reflections would be insightful.

As to specific events that did not go well, there were continuous opportunities for issues. The extended team had good days and bad days, but the positive days far exceeded the negative ones. The plant manager and leadership team could have leveraged resources from a few places for help with change management, if that thought had occurred to someone. As an old facility, there were ongoing challenges with systems needing major repairs or failing at the wrong time. As stated in the discussion, maintaining core disciplines as long as possible are counter-intuitive but help significantly with the transition.

As to accountability to more senior leadership, the plant manager had direct access as needed. The funding for most of the events was possible because of the extended team's customer focus, efficiency and performance providing a positive variance to the business plan. This was not the plant manager's first senior role over a plant and the plant manager had volunteered to lead the closing through to closure and the plant manager was given the space to use their talents effectively. Though more than a few processes and methods had to be developed as the closing progressed, the earliest advice to "take care of the people, and the rest will fall in place," proved highly accurate, insightful and helpful.

Employee Assistance Program. The established Employee Assistance Program (EAP) and the EAP professional were integral to the successful closure of the plant, and EAP was discussed at length in the study. Given that context, the critical colleagues identified additional areas for discussion.

A significant amount has been already discussed in the researcher study to this point on the early, committed engagement of the Employee Assistance Program (EAP) in the successful transition of the team through the closing. Every voice matters in the transition to closure. Neither the leadership team nor did the individual extended team members know how people would adjust and react to the multi-year journey to closure. The leaders needed to take the time to listen everyday to what people were saying, no matter what the perspective. As one colleague said, "perception is reality." It does not matter whether what someone is saying, or feeling is accurate. If the individual feels something, that is what the leadership team needs to address. Leaders need to honor and respect what people are feeling and give people the space and time to process through those feeling.

In the closing, having an EAP professional on the site was very helpful for many people on the extended team. The Joliet plant was fortunate to have a person on the site that was approachable, knowledgeable and caring. Another colleague reminded that the power in the EAP workshops and presentations was the person providing the training and coaching. Issues of depression, suicide, mental health, resiliency, and hope need to be delivered by someone who has connected with the team. These presentations cannot be “canned,” or just delivered by a trained presenter. Also, from the colleague feedback was the role of EAP within the closing was built on many people’s contributions—Caterpillar’s corporate medical director suggested the R U OK? program; the EAP professional built a significant amount of engagement and momentum on the presentation of an external safety motivational speaker, and though not necessarily apparent, much of the EAP work in the workshops was based on Kübler-Ross’ grief cycle model (1973).

Leadership traits. Some critical colleagues highlighted specific traits of leadership meriting discussion (open communication, compassion, personal connection, flexibility, honesty, humility, and integrity) that they felt were integral to the success of the closure. Others, within the topic of leadership and leadership traits, wanted further discussion on the coaching style used with the leadership team.

A few colleagues mentioned distinct leadership traits that were present that were critical to engaging the extended team well. Another colleague asked if some time and space could be given to the plant manager’s coaching philosophy with their direct leaders. This discussion ties back to trust (Mayer et al., 1995) as the foundation of an overall engagement cycle. If the leaders are committed to the extended team and are committed to do what is right by the team, there will be the seeds of trust that can grow. Trust will grow faster, and trust will grow deeper in the presence of the right attributes. As stated by some of the colleagues, there was a deep

commitment to the overall team that started with the right recruitment of people back into the organization as rehired-retirees.

To be clear, there were many potential rehired-retirees, the individuals recruited back were the right individuals for the task. The rehired-retirees were specifically recruited because they had reputations for being good at their jobs and being leaders who would protect, coach and lead their teams. Most of the rehired-retirees had significantly better things to do in retirement but they joined the team to ensure the individuals within the extended team “finished strong” and the plant ended with a positive, lasting legacy. Given that “soil” to grow in, character traits like loyalty, commitment, compassion, connection, honesty, humility and integrity flourished. When these traits were modelled in a self-less environment by the leaders, the extended team responded in kind and this made it easier for the leaders to do what was right. The virtuous cycle started and then grew.

As to the plant manager’s coaching style, it was ongoing, continuous and tailored to the individual being coached. The plant manager invested a significant amount of time each day and each week getting to know the members of the team as individuals and as professionals. A few takeaways on the coaching style were the expectation that everyone would do what was required to satisfy the customer, fulfill the team’s commitment and goals, and to perform every day; the success of the Company was important, but the individual’s goals and desires were important too; and ultimately the goal was to do what was right by the individual.

Other Items. As a “catch-all” area for a few items, there was a desire from some of the critical colleagues to discuss the depth of talent available in the leadership team; to spend more time on “structure before relationship;” to discuss whether trust can be taught or not; and to clarify why an executive coach is a better option than a mentor or an internal coach. A critical

colleague suggested that in doing a similar process again, reviewing the presentation before the research paper would be a significant improvement.

A few items from the “other items” group included the depth of talent in the leadership team and the opportunity to go after the talent needed for the leadership team. The selection of leader sounded easy but as was discussed previously, the best people had other commitments but were also willing to come back to work for a “noble cause.” Helping people you have known for decades transition through a tough time and at the same time to ensure the plant where you have spent over thirty years of your pre-retirement career end with a positive legacy is a noble cause. The leaders who joined the closing team or stayed with the closing team did so because they connected with the purpose of helping the extended team.

Regarding a discussion at several points in the research materials on “structure before relationship,” the specific idea that initial structure is more critical than the immediate relationship is from the work of Blanchard and Hersey (1969) and what became Situational Leadership Theory. When individuals lack the skills to get the job done but would willing follow, a “directing” style is needed to stabilize the work environment and to facilitate being able to build the capability within the team for a more self-management style. In the directing style, the need for task accomplishment is high and the relative need for relationship is low—hence, “structure before relationship.” To be clear, this does not mean relationship issues are unimportant, but it is through establishing structure and process disciplines first that the team will be most effective.

As to whether trust can be taught—if the person teaching trust is credible, trust can be taught. The concern from the colleague was whether there would be a danger an untrustworthy leader with a strong understanding of how trust works might provide training in order to

manipulate the team for short-term success. This is a possibility, but not a likelihood.

Understanding how trust builds and can sustain is powerful, but there is a requirement that trust be sincere. If there is a desire to manipulate the team to get short-term performance, trust will ultimately fail and the attempt to teach a fake form of trust will also fail.

Lastly, relative to bringing in an executive coach versus using an internal coach or mentor, the issues ties to where the skills are to be found. The primary focus is on having the right skills specifically tied to knowing how to effectively lead a team through a closing transition. Those skills are more likely found outside the organization. As the person selected will need to influence the entire team from the plant manager (and potentially above the plant manager) through the rest of the organization, having a senior coach with executive experience still willing to get involved in the day-to-day needs of plant is needed. Therefore, the recommendation was for an executive coach. If the right person is available internally that would be acceptable, but having external perspectives is valuable.

Limits to Research

There were some significant limits to the research. As the researcher's desire and goal was to capture the lessons learned from the Joliet plant closure, the action research method was a reasonable approach to balancing the role of researcher and plant manager. In being a senior leader in the closure, the collection of certain types of data or conducting formal interviews during the closure were infeasible. Direct interviews of the extended team, that were appropriately framed within an overall research project, would have created a conflict of interest for the plant manager. Conducting the data collection and interviews, without IRB and formal consent, would not have been part of the normal responsibilities of the plant manager and would

have been inappropriate. Additionally, any materials developed would have been the property of Caterpillar Inc., requiring a formal agreement to use and study.

Post-closure and potentially through an independent researcher, conducting direct interviews of the wider community would be potentially insightful for Caterpillar. Longitudinal studies would also be valuable to learn from and improve the overall transition processes. For what this research study was intended to do, the ability to insert the researcher into their own experience was powerful through action research but limited to public information and the personal experiences of the researcher.

Lastly, the use of critical colleagues for feedback and insight was a positive experience that was worth studying further and developing for other applications in research and in the for-profit environment. Overall, the use of critical colleagues proved very insightful and helpful, and earlier use of critical colleagues would have further added to and positively shaped the research.

Further Research

Specific to the future research opportunities, the critical colleagues identified 23 potential, future research projects as new, multi-company studies (16); and as extensions of the Joliet plant study (7) including a suggestion to republish the research study as either a case study or business book.

Relative to new, multi-company studies, the following studies are worth further investigation as short-term studies and as longitudinal studies:

- How can plant closures be avoided? Are there examples of organizations that have contemplated plant closures, initiated the activity and then avoided closure?

- How effective are the transition processes for companies going through a plant closure? There are three areas of focus: the core transition processes, the ability to get jobs within the company, and the ability to get jobs outside of the company.
- How does plant age (tenure) and the total closure time (from first announcement to final closure) impact plant closure effectiveness?
- What are the characteristics (leadership style, volunteer or incumbent, and post-closure career) of plant managers who lead plant closings and how effective are the closures?

Within the research extensions to the Joliet plant closure, the following studies are worth further investigation as short-term studies and as longitudinal studies:

- How was the surrounding community impacted by the Joliet plant closing process from first announcement to final closure?
- What are the perspectives of the individual “voices” (comments, insights, impressions) from the working level people from the closure in comparison to the research study?
- How did the use of EAP impact the individual’s ability to perform and cope during the closing period?
- How did intra-team working relationships impact the individual’s ability to perform and cope during the closing period?

Future Implications

This research study focused on the experience of one team over a multi-year closing window. There are other plants that can be learned from and improvement lessons collected for application. Though the ideal case is to focus on what is needed to engage the workforce and

produce a thriving, profitable plant, plant closures are likely to increase as the economy eventually slows and declines. Within those coming plant closures, the overall ability to transition the extended team to more productive and effective future roles can be accomplished through a combination of the leadership team's awareness that they can make a difference and the application of lessons learned to improve the outcomes.

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Appendices

Appendix A – IRB Exempt Approval

From: IRB@govst.edu <IRB@govst.edu>
Sent: Monday, October 14, 2019 1:37:20 PM
To: Rink, James (Student) <jrink@student.govst.edu>; Wagner, Stephen <swagner2@govst.edu>
Subject: IRB-FY2020-10 - Initial: Notice of IRB approval - Exempt



Institutional Review Board
Room G353
1 University Parkway
University Park, IL 60484
www.govst.edu/irb

Oct 14, 2019 1:37 PM CDT

Stephen Wagner, James Rink
Mgmt, Mktg, & Entrepreneurship

Re: Exempt - Initial - IRB-FY2020-10 Action Research Project – Practice Compared to Theory in the Closure of the Caterpillar Joliet Facility

Dear Dr. Stephen Wagner and James Rink:

The Governors State University Institutional Review Board has granted exempt approval for your project titled "Action Research Project – Practice Compared to Theory in the Closure of the Caterpillar Joliet Facility ." You may begin your research.

- All research related to this project **must** be conducted **exactly** as stated in the approved research protocol
- If you would like to make any changes to research personnel or to the way that this research is conducted, you must completed a **Modification submission** and **wait for IRB approval** to enact any changes.
- Please be advised that you may **only** distribute the **GSU IRB approved** text, forms, documents, and materials to all participants. Your approved and stamped consent form and recruitment materials can be found under the "Attachments" tab on the "Study Details" page.
- After you have completed the project, please complete a **Project Closure submission**.
- Please include the assigned IRB project number, PI name, and exact title of your project in any correspondence about this project.

Decision: Exempt

Selected Category: Exemption Category Category 2.(ii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording).

Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation.

Sincerely,
Governors State University Institutional Review Board
irb@govst.edu

Appendix B – Invitation to Participate Email

From: “Rink, Jim” <JRink@student.govst.edu>
Sent: xx/xx/xx
To: [Potential Research Study Participant]
Cc: "Wagner, Stephen" swagner2@govst.edu
Subject: Please help as a participant in my doctoral research study

As many of you are aware, I have been actively working on a doctorate in education at Governors State University. In fulfillment of the doctorate degree, I am completing a research study based on my recent experience with the Caterpillar Joliet facility closing.

The outcome of this research study was a series of best practices that could be applied to leaders, followers and organizations experiencing a closing event, that shifts the experience from a typically poor experience to an experience of resilience, hope and overall well-being. As a research tool, the desired outcome is to broaden the body of knowledge relative to leadership through a plant closures and to provide a hands-on example of action research applied in the for-profit segment of a traditional manufacturing company.

This research study uses an action research method, which allows a principal investigator (me) to insert them self directly into the research through a process of review, analysis, reflection and action (improvement) planning. Action research also uses “critical colleagues” or “critical friends” to add additional perspectives and to ensure a healthy cycle of discussion, observation, reflection and learning takes place.

Please consider helping. I am asking you to consider participating in this research study as a “critical colleague.” As a critical colleague you are a trusted friend who reviews the research and provides feedback to reduce researcher bias, to improve the overall quality of the research and to capture new insights and learning from the research.

The commitment. If you elect to participate, you will be asked to review a copy of the draft research paper and then respond by completing an online, anonymous survey. You will also be asked to attend a working version of the research presentation and then respond by completing a second online, anonymous survey. Participation time in this study will vary; however, estimated duration is 30-45 minutes to review the research report and an additional 30 minutes to complete the online survey. The research presentation will take approximately 90 minutes to participate in with an additional 30 minutes to complete the second online survey. **From receiving a copy of the research paper to completing the two surveys will be approximately 5-7 calendar days.**

Qualifications. Participants for this study must be able to say **YES** for one of the three following subgroups:

- A. I was a **core member of the Caterpillar Joliet leadership team**, at some point during the Caterpillar Joliet plant closure period, and I had direct influence on the actions taken relative to the transition plans of the Caterpillar Joliet plant within the time of January 2015 to June 2019.

OR

- B. I was the **primary leader for the United Way of Will County, Will County Center for Economic Development, or Workforce Center for Will County**, at some point during the Caterpillar Joliet plant closure period, and I have first-hand knowledge of the Caterpillar Joliet plant closing from a site visit, attending a status briefing or interacting with people in the performance of my leadership role within the time frame of January 2015 to June 2019.

OR

- C. I was a **Caterpillar plant manager from the Aurora, Decatur, East Peoria (KK) or South Milwaukee plant**, and I have first-hand, relevant experience from a factory closure or large-scale layoff (a WARN act was triggered) other than from the Caterpillar Joliet plant, within the time frame of January 2015 to June 2019.

Next steps. If you can say YES to one of the areas above and want to participate in the research study, you need to print out the last page of the attached consent form; sign, date and scan / photograph the completed form; and email it back to within 1-2 days. Please keep the consent form for your reference. Once I have the completed signature page, I will send you the research paper and the various links.

Can you partially commit? Absolutely, if you would love to participate but can't make the commitment to both tasks—you can elect to review just the research paper or just the presentation. Just let me know in the email when you return the consent form.

Can you just get a copy of the final research paper and presentation? Yes, if you can't review either portion of the research study but the research is interesting to you, please let me know in an email note and I will send you a copy of the final research paper and presentation when the study is completed. Participants will get final copies of the report and presentation just for participating.

Thank you in advance!

Jim Rink
RinkJR@gmail.com
630-470-8640

Appendix C – Informed Consent Form

Consent to Participate in Research Study

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Governors State University
College: COE
Division: Interdisciplinary Leadership (INLD)

Title of Research Study: Action Research Project – Practice Compared to Theory in the Closure of the Caterpillar Joliet Facility

Principal Investigator: Jim Rink

Faculty Sponsor: Dr. Steve Wagner

Key Information:

The following is a short summary of this study to help you decide whether to participate or not. More detailed information is listed later on in this consent form.

- Your consent to participate in this study is being sought through a description of activities in this form. Participation in this study is voluntary and you can choose not to participate or withdraw at any time without any penalty.
- The purpose of this study is to compare practice to theory in the case of the closure of the Caterpillar Joliet hydraulics facility. Using an action research approach, the experience and outcomes of the primary leader, followers and extended will be evaluated through a process of review, analysis, reflection and action (improvement) planning based on publicly available information and personal reflection.
- You will be asked to review a copy of the draft research paper and then respond by completing an online, anonymous survey. You will also be asked to review a draft version of the research presentation and then respond by completing an online, anonymous survey.
- Participation time in this study will vary for each individual; however, estimated duration is 30-45 minutes to review the research report and an additional 30 minutes to complete the online survey. The research presentation will take approximately 90 minutes to participate in with an additional 30 minutes to complete the second online survey.
- There are no risks are intended or anticipated in this research. The benefits of the study are to add to the body of knowledge on leadership in a plant closure. The current research literature is lacking in applied work on the impact of leadership on the primary leader, followers and extended organization in a plant closure or significant organizational decline. With effective leverage of the participants within an action research framework, the Capstone research would be a solid foundation for future projects and organizational evaluations. Specifically, best practices for: leading an organization through a time of organizational decline; engaging followers during a plant closure or organizational end; developing leadership resiliency and maintaining “true north” through the closure / transition; and apply a servant leadership-based approach to

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“ending well” / “finishing strong.” Participants in the research will directly contribute to the body of knowledge.

- Participation is voluntary and participation can be discontinued at any time. Feedback can be withheld within the research process as the participant feels needed. Participants will be allowed to review the research and participate in the presentation even if no feedback is provided.

Why am I being asked to participate in this research study?

We are asking you to participate in this research study because you were a member of the leadership team at the Caterpillar Joliet facility during the closing or you are a subject matter experts within the community or from within Caterpillar Inc. with experience with factory operations and factory closures.

What should I know about participating in a research study?

- Whether or not you participate is up to you. You can choose not to participate.
- You can agree to participate and then later change your mind.
- Your decision will not be held against you or result in penalty.
- You can ask all of the questions that you want before you decide.

What happens if I agree to participate in the research study?

As a participant in this research, you can expect the following:

- After the consent form is completed and signed, participants will receive an emailed draft copy of the research report, two survey web links and a link for scheduling participation in the draft research presentation. The surveys have been designed to examine your reaction to the research, identifying areas for improvement and capture additional insights.
- Participation will involve reading the report, attending the presentation and completing the two online surveys within 7-10 days of receiving the research report by email.
- A survey reminder will be emailed prior to the scheduled presentation. The intent of the second survey is to be completed during or just after the research presentation.
- The surveys will be anonymous including the removal of the IP address from electronic submission of the responses. Unique identifiers will be provided by the participants allowing the two surveys to be matched together but not to identify the participant.
- For convenience, there will be two presentation times and participants can attend either presentation.
- All participant activity will take place in a setting of the participants choosing. For the presentation, the participant will need access to the internet.
- There will be no recording of the audio or video of the presentation.
- The information provided by the participants in the study will be combined with that of other participants in the final research report and research presentation. The anonymous, individual responses will not be published and will be seen only by the researchers.

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Consent to Participate in Research Study

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- The participant feedback will be used in the action research process to reduce researcher bias, to improve the overall quality of the research and to capture new insights and learning from the research.

Will being in this study help me in any way?

We cannot promise any benefits to you or others from your taking part in this research. However, possible benefits include your opportunity to contribute to the body of knowledge regarding leadership during a plant closing.

Is there any way being in this study could be bad for me?

The risks of participating in this study are no greater than those someone would experience in day-to-day life.

What happens if I do not want to be in this research?

Participation in research is voluntary. You can decide to participate or not to participate. Feedback can be withheld within the research process as the participant feels needed. Participants will be allowed to review the research and participate in the presentation even if no feedback is provided.

What happens if I say “Yes”, but I change my mind later?

You can leave the research study at any time and it will not be held against you. You can leave the research study by contacting the investigator or by not participating in further research activities including reviewing the research paper, attending the research presentation or completing the survey(s). Survey completed prior to withdrawal will be used in the research unless the participant explicitly requests of the investigator the information be removed.

What happens to the information collected for the research?

The specific feedback from the participants will be coded and not traceable to the specific individual. Involvement of the participant will be limited to their reaction to the research paper and research presentation. As there is specific jargon and nomenclature used in the context of the research, key terms and definitions will be reviewed and clarified in the research presentation before the final feedback is obtained.

Your information or samples that are collected as part of this research will not be used or distributed for future research studies, even if all of your identifiers are removed.

The data, feedback and analysis from the research will be secured on a password-protected computer at GSU in Dr. Steve Wagner's office, G275, and will only be retained for the required retention period and then destroyed. Any paper copies of the feedback will be stored in a locked cabinet at GSU in Dr. Steve Wagner's office, G275. Per GSU Policy #53 on the protection of human research subjects, the data and paper feedback will be retained for at least five (5) years after the completion of the research and then destroyed.

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Consent to Participate in Research Study

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Data Sharing

Results from this study (without any of your personal information) may be shared with other researchers to advance science and health. We will remove or code any personal information that could identify you before files are shared with other researchers to ensure that, to the best of our knowledge, no one will be able to identify you from the information we share. Despite these precautions, there is always the remote risk that there could be a breach of confidentiality, but we will do our best to avoid that risk.

What else do I need to know?

At the completion of the research, participants may request a copy of the final research paper and research presentation from the investigator.

Who can I talk to?

If you have questions, concerns, or complaints talk to the principal investigator, Jim Rink at jrink@student.govst.edu or at 630-470-8640 or the faculty advisor for this study, Dr. Steve Wagner, at swagner2@govst.edu or at 708-534-4527.

This research has been reviewed and approved by an Institutional Review Board ("IRB"). You may contact the IRB at irb@govst.edu if you have questions or concerns regarding your rights as a research participant. You may also contact the Director of Sponsored Programs and Research at 708/235-2846.

Signature for Adult 18 or older

Signing here mean that you are agreeing (consenting) to participate in this research and that you are giving the researchers permission to use the information that they collect from your participation.

Signature of participant_____
Date_____
Printed name of participant_____
Signature of person obtaining consent_____
Date_____
Printed name of person obtaining consent

Governors State University IRB-FY2020-10 Approved on 10-14-2019

Appendix D – Survey #1: Reaction to the written research paper

Governors State University

College: COE

Division: Interdisciplinary Leadership (INLD)

Title of Research Study: Action Research Project – Practice Compared to Theory in the Closure of the Caterpillar Joliet Facility

Principal Investigator: Jim Rink(JRink@student.govst.edu)

Faculty Sponsor: Dr. Steve Wagner

Note: This survey will be administered anonymously through SurveyMonkey. The following is the survey as it will appear online through SurveyMonkey. The IP address will NOT be recorded for participants of this survey. The survey can be found at:

<https://www.surveymonkey.com/r/J5KNBYP>

Survey One: Reaction to the written research paper

This research intends to compare practice to theory in the case of the closure of the Caterpillar Joliet hydraulics facility. Using an action research approach, the experience and outcomes of the primary leader, followers and extended will be evaluated through a process of review, analysis, reflection and action (improvement) planning based on publicly available information and personal reflection. Critical colleagues are used for additional perspectives and to ensure a healthy cycle of discussion, observation, reflection and learning takes place. The desired outcome of this Capstone is a series of best practices that can be applied to leaders, followers and organizations experiencing a similar event, promoting resilience, hope and overall well-being. As a research tool, the desired outcome is to broaden the body of knowledge relative to leadership through a plant closures and to provide a hands-on example of action research applied in the for-profit segment of a traditional manufacturing company.

You are a “critical colleague” for this study as you were a member of the leadership team at the Caterpillar Joliet facility or you are a subject matter expert within the community or within Caterpillar Inc. with experience in factory operations or factory closures. As a critical colleague you are a trusted friend or colleague who reviews the research and provides feedback to reduce researcher bias, to improve the overall quality of the research and to capture new insights and learning from the research.

If you decide to continue in this research project, you will complete two online, anonymous surveys regarding your reaction to the research. Your participation is voluntary and if you decide to take part, you may request a brief report at the end of the study. If you have any questions or concerns, please contact the persons listed on this form. **THIS SURVEY IS THE FIRST OF THE TWO SURVEYS.**

The length of time required to complete the first survey will vary for each individual; however,

estimated duration is 30 minutes with an additional 30-45 minutes to read the research report. The research presentation will take approximately 90 minutes with an additional 30 minutes to complete the second survey. The surveys have been designed to examine your reaction to the research, identifying areas for improvement and capture additional insights.

TO COMPLETE THIS SURVEY, YOU NEED TO HAVE RECEIVED AND REVIEWED A COPY OF THE RESEARCH PAPER. The information that you provide in this study will be combined with that of other participants in the final research report and research presentation. The written responses of individual participants will not be published and will be seen only by the researchers.

The main researcher conducting this study is Jim Rink, a doctoral student at Governors State University. If you have questions later, you may contact Jim at jrink@student.govst.edu or at 630-470-8640 or the faculty advisor for this study, Dr. Steve Wagner, at swagner2@govst.edu or at 708-534-4527.

Participation in this research is voluntary. You are free to discontinue at any time, and you may withhold feedback within the research process as you desire. You are also free to review the research and participate in the presentation even if no feedback is provided or to withdraw your consent and discontinue participation in the project at any time without penalty. Your written responses are completely confidential.

Survey Identifier

We would like to ask you a few initial questions that we'll use to ensure we properly match the two questionnaires together after they are completed:

1. What are the last four digits of your phone number from when you were 12 years old?

2. What was your high school mascot? _____
3. What was the name of your first pet you owned? _____

Start of Formal Survey

4. **Overall material:** Is the overall research paper clear? What is missing? What should be clarified? What should be excluded?

5. **Material quality:** What one thing would you do to improve the overall quality of the research paper?

6. **Identifying additional best practices:** Drawing from the research paper, what additional best practices can be identified and/or clarified?

7. **Identifying additional insights and learning:** Drawing from the research paper, what additional insights or learning can be identified and/or clarified?

8. **Additional comments:** What additional comments do you wish to share regarding the research paper?

Appendix E – Survey #2: Reaction to the presentation

Governors State University

College: COE

Division: Interdisciplinary Leadership (INLD)

Title of Research Study: Action Research Project – Practice Compared to Theory in the Closure of the Caterpillar Joliet Facility

Principal Investigator: Jim Rink(JRink@student.govst.edu)

Faculty Sponsor: Dr. Steve Wagner

Note: This survey will be administered anonymously through SurveyMonkey. The following is the survey as it will appear online through SurveyMonkey. The IP address will NOT be recorded for participants of this survey. The survey can be found at:

<https://www.surveymonkey.com/r/ODK9833>

Survey Two: Reaction to the presentation

This research intends to compare practice to theory in the case of the closure of the Caterpillar Joliet hydraulics facility. Using an action research approach, the experience and outcomes of the primary leader, followers and extended will be evaluated through a process of review, analysis, reflection and action (improvement) planning based on publicly available information and personal reflection. Critical colleagues are used for additional perspectives and to ensure a healthy cycle of discussion, observation, reflection and learning takes place. The desired outcome of this Capstone is a series of best practices that can be applied to leaders, followers and organizations experiencing a similar event, promoting resilience, hope and overall well-being. As a research tool, the desired outcome is to broaden the body of knowledge relative to leadership through a plant closures and to provide a hands-on example of action research applied in the for-profit segment of a traditional manufacturing company.

You are a “critical colleague” for this study as you were a member of the leadership team at the Caterpillar Joliet facility or you are a subject matter expert within the community or within Caterpillar Inc. with experience in factory operations or factory closures. As a critical colleague you are a trusted friend or colleague who reviews the research and provides feedback to reduce researcher bias, to improve the overall quality of the research and to capture new insights and learning from the research.

If you decide to continue in this research project, you will complete two online, anonymous surveys regarding your reaction to the research. Your participation is voluntary and if you decide to take part, you may request a brief report at the end of the study. If you have any questions or concerns, please contact the persons listed on this form. **THIS SURVEY IS THE SECOND OF THE TWO SURVEYS.**

The length of time required to complete the first survey will vary for each individual; however,

estimated duration is 30 minutes with an additional 30-45 minutes to read the research report. The research presentation will take approximately 90 minutes with an additional 30 minutes to complete the second survey. The surveys have been designed to examine your reaction to the research, identifying areas for improvement and capture additional insights.

TO COMPLETE THIS SURVEY, YOU NEED TO HAVE REVIEWED A PRESENTATION OF THE RESEARCH. The information that you provide in this study will be combined with that of other participants in the final research report and research presentation. The written responses of individual participants will not be published and will be seen only by the researchers.

The main researcher conducting this study is Jim Rink, a doctoral student at Governors State University. If you have questions later, you may contact Jim at jrink@student.govst.edu or at 630-470-8640 or the faculty advisor for this study, Dr. Steve Wagner, at swagner2@govst.edu or at 708-534-4527.

Participation in this research is voluntary. You are free to discontinue at any time, and you may withhold feedback within the research process as you desire. You are also free to review the research and participate in the presentation even if no feedback is provided or to withdraw your consent and discontinue participation in the project at any time without penalty. Your written responses are completely confidential.

Survey Identifier

We would like to ask you a few initial questions that we'll use to ensure we properly match the two questionnaires together after they are completed:

1. What are the last four digits of your phone number from when you were 12 years old?

2. What was your high school mascot? _____
3. What was the name of your first pet you owned? _____

Start of Formal Survey

4. **Overall material:** Is the overall research presentation clear? What is missing? What should be clarified? What should be excluded?

5. **Material quality:** What one thing would you do to improve the overall quality of the research presentation?

6. **Identifying additional best practices:** Drawing from the research presentation, what additional best practices can be identified and/or clarified?

7. **Identifying additional insights and learning:** Drawing from the research presentation, what additional insights or learning can be identified and/or clarified?

8. **Additional comments:** What additional comments do you wish to share regarding the research presentation?