Improving the Employee Transition Experience: A Practical Business Application for Design Thinking

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Improving the Employee Transition Experience: A Practical Business Application For Design Thinking

by

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ACCEPTANCE

This dissertation was prepared under the direction of the *ALETA W. RICHARDS* Dissertation Committee. It has been approved and accepted by all members of that committee, and it has been accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Business Administration in the J. Mack Robinson College of Business of Georgia State University.

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ABSTRACT

Improving the Employee Transition Experience: A Practical Business Application For Design Thinking

by

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Organization transitions are a complex and difficult change process. This complexity has led to a significant percentage of transitional failures. While academic process models exist, few references are made to concrete tools to navigate the journey. The design thinking process is a proven tool when designing new products, but has limited academic exposure in practical business applications. This study explores the impact of integrating the use of design thinking, as a potential change tool, into an organizational transition. Case study methodology was applied to a business unit within a single organization, currently managing an organizational transition. An intact team was recruited to form the design team, which was tasked with creating an innovative experience for their colleagues navigating the transition. Data was collected from existing employee interviews, through observations of the design process and follow-up participant interviews. Results align with existing literature, asserting that a lack of communication and uncertainty, during an organizational transition, leads to employee stress and impacts their willingness to support the change effort. Additionally, the design team have developed the ability to ideate and prototype, identifying two offerings for the organization – an orientation session and video logs (Vlogs). One offering has positive feedback from the overall

organization. Participant feedback also highlighted the value placed upon the empathetic interviews and the potential use for those skills in myriad business settings. Study contributions include the confirmation that design thinking is an effective tool to resolve practical business challenges. This study also demonstrated that design thinking has significant value beyond product design. Using empathetic interviews and engaging employees as design-thinking participants result in increased employee engagement and feelings of inclusion.

INDEX WORDS: Design thinking, organizational transition, organizational redesign, organizational change, empathetic interviews, change tools

I INVESTIGATIVE CONTEXT

Organizational transitions are inherently designed to change the nature and structure of existing jobs (Mossholder, Settoon, Armenakis, & Harris, 2000). If not managed effectively, transitions could result in increased employee dissatisfaction, employee turnover and diminished business performance. Additionally, because of the complex nature of organizational change, McKinsey and Company provide that seventy percent (70%) of all organizational transformations fail (Gleeson, 2017). These challenges are not new, but span decades. Firestone's competitive loss to its rival Michelin's radial tires in the 1970's and fashion house Laura Ashley's inability to keep up with declining costs due to growing imports in the 1980's are examples of the challenge to successfully execute an organizational transition (Sull, 1999). More recently, Blockbuster's loss to rival start-up Netflix is a contemporary illustration. Sensing the change in consumer preferences, Netflix offered to combine business models and provide in-store and online home entertainment in 2004. The $6 billion Blockbuster giant declined, content with the status quo and six years later found itself bankrupt (Lepsinger, 2017).

FirmX is experiencing similar changes in its dynamic business environment. Increased levels of competition, growing regulatory concerns, expanding product substitutes, and broadening supplier issues are causing added performance pressure for the organization. With this growing list of challenges, FirmX leadership has decided to embark upon an organizational transition to move from a functionally driven organization to one more directly linked to the external marketplace. Functional teams will be replaced with those focused on industry segments. Each industry segment will incorporate industrial marketing, technical development and sales to create market-focused teams. These segment teams will need to develop cross-functional operating models, leveraging the knowledge and expertise of each functional sub-

team. Finally, the industry teams will need to redirect their attention to external market drivers, competitive positioning and future industry trends.

With this transition, every employee within the commercial, marketing and technical organizations will be impacted. Whether the change constitutes a move to a new organizational entity, a different approach to an existing business process or a change in current networked relationships, each employee will need to manage a new organizational environment. While FirmX has decided to embark upon an organizational transition, the impact of the transition on future business success is unavoidable.

As the leader of the current and newly formed organization, I realized that an opportunity existed to change the way that we approached an organizational transition. Historically, our firm has implemented organizational transitions in myriad ways. Different communications channels, inconsistent milestones, and ill-timed messaging created additional project complexity. More transitions would have been successfully executed if a proven methodology and tool set existed that helped to ensure a consistently implemented transition plan.

Given this historical context, constrained project management resources and limited tools, I realized the need to identify creative and highly efficient ways to ensure organizational transition success. This organizational transition was already impacted by challenges with My own limited personal experience in such an extensive transition further supported the decision to conduct this study. Employing a rigorous research methodology would allow both myself and the organization to benefit from both the insights of previous research and rich feedback from the organization's employees. While selecting the right organizational design is important to efficient operations, this study recognizes that successfully managing the transition is critical to our businesses' long-term success.

Orientation Session Results	As previously agreed, the results from the Orientation Session should be incorporated into the dissertation to reflect the results from the follow-up employee surveys	1. Conduct the Orientation Session and summarize the event. 2. Conduct a follow-up employee survey as defined in the Data Collection and Analysis – Phase 3b – Test section.

II ORGANIZATIONAL TRANSITION AS A COMPLEX CHALLENGE

Horst Rittel described wickedly complex problems as those that occur within social systems. These problems are ill defined and incorporate multiple decision makers with varying values. Rittel and Webber (1973) refined the definition of these problems by highlighting the continual need to solve them and the fact that no clear endpoint exists for complex, social problems. These problems are simply solved over and over again (Rittel & Webber, 1973).

To better explain their definition of an ill-defined problem, Rittel and Webber reference the challenge of eliminating poverty. Fully defining the problem of 'poverty' would require the understanding of every cause associated with this social issue and the ability to clearly articulate and cover those in the problem statement (Rittel & Webber, 1973). If this were an easy task, poverty would be considered an easy problem to solve.

Additionally, the problem's impact on the social system may be very confusing (Buchanan, 1992). Buchanan advances that complex problems are also not resolved using simple yes/no or good/bad approaches. Because many parties have a vested interest in the solution and offer varying interpretations of the problem and solution, the resolution of a complex problem will not be good or bad. The solution will rely on the divergent opinions and analysis of the stakeholders (Rittel & Webber, 1973). Each one is unique and multiple solutions and applications could apply. Coyne (2005) also enhanced the definition of a complex problem by further defining its dynamic nature. These type of problems are evolving, with continual redefinition and changing solutions over time (Coyne, 2005).

Human resource challenges can also be considered cruelly complex. Organizations need to balance their external demands with meeting internal employee needs (Plaskoff, 2017). First, to ensure strong performance, organizations must focus upon three key objectives: retention,

engagement and innovation (Caplan, 2014), each requiring a dedicated focus and responsiveness. Additionally, managers should continually assess the need to transition their organizations to meet the needs of their dynamic business environment (Kesler & Kates, 2011).

Managing an organizational transition could be associated with managing a complex, human resource problem. Like the definition of a complex, social problem, organizational transitions have multifaceted problem statements. Multiple stakeholders interpret organizational challenges in varying ways. These divergent interpretations can lead to differing explanations of the success or failure to the organizational transition approach. Employee resistance, for example, is one factor that is generally believed to negatively impact organizational change. Employee resistance is also considered the most significant factor impacting organizational change (O'Conner, 1993). Managing this resistance could improve the potential success of the transition (Avey, Wernsing, & Luthans, 2008).

II.1 Employee Resistance to Change

Wide-ranging research exists concerning the resistance to change, particularly within an organizational context. To begin, change management originated with Kurt Lewin, who affirmed that change occurs when forces that are advocating change overcome those forces that disagree with it. Lewin's model outlines three steps: unfreeze, change and refreeze (Lewin, 1947). In order to secure change, one has to provide a burning platform, unfreezing existing beliefs, activities and behaviors. The change then needs to be implemented followed by refreezing the beliefs to institutionalize the change. This model is considered by some academics as the foundational work for the field of change management (Cummings, Bridgman, & Brown, 2016).

Fundamentally, resistance to organizational change may occur for many reasons. Resistance can be ascribed to the uncertainty related to the change and any other identified unknowns (Coghlan, 1993). Mauer (1996) posits that resistance is a likely reaction to change, as individuals tend to protect themselves from events that may disrupt their lives. He differentiated between Level 1 - superficial resistance, or the belief that something is more important than the current activity, and Level 2 which is more entrenched and related to the actual change itself (Mauer, 1996). Similarly, Petrini and Hultman (1995) also differentiated resistance between passive and active. Active resistance manifests in observable behaviors: sabotage, spreading rumors, being overly disparaging and refusing to support the effort. In contrast, passive resistance takes the form of verbalized support without supportive action, missing commitments or delaying progress.

Prediscan, Bradutanu and Roxana (2013) further outlined the factors related to organizational resistance to change. The authors affirm that internal and external forces exist and that each of these categories influences the intensity of employee resistance. Table 1 highlights these factors.

Table 1: Factors Affecting the Intensity of Employee Resistance

Internal Factors	Proposed Change	Length, timing, planning, immediacy, degree of change
	Employee Influence	Trust, knowledge, experience, marketability, position, level, age, job security, degree of creativity
	Managerial Influence	Experience, management style, leadership abilities, change management skills, communications skills, inspirational
	Organizational Influences	Structural complexity, decentralization, human resource systems, market position, industry, age, unions
External Factors		Purchase power, seller power, economic conditions, unemployment, labor market, labor market opportunities

(Prediscan, Bradutanu, & Roxana, 2013)

The degree to which these factors exist may impact the degree of organizational resistance. For example, an extremely fast organizational change within a highly complex firm with limited job security could create a highly resistant employee population.

Aligned with Prediscan et al. (2013), the Change Readiness Matrix also associates personal, organizational and change factors to potential areas of organizational resistance. Self and Schraeder (2008) theorize a relationship between the rationale for the change, the messaging, visible support and the ability to change with three other factors: personal influences (fear, uncertainty, lack of confidence), organizational influences (trustworthiness, inclusion, support mechanisms) and the change (previous experiences, structures, formal systems) (Self & Schraeder, 2008). Managing this interrelationship is a significant aspect within an organizational change effort.

Tying these components together, Palthe (2014) advances a Conceptual Model of Organizational Change. This model communicates the relationship between an organization's human arrangements that, if not appropriately managed, lead to dissatisfaction. This dissatisfaction then impacts the final organizational change. Specifically, regulative (legal/compliance factors), normative (norms) and cognitive (cultural acceptability/beliefs) components impact the organization's human schema. The impact of these policies, rules, norms, beliefs and habits impact (1) the ability of an organization to change, (2) the satisfaction around the change and (3) the degree of resistance (Palthe, 2014). Figure 1 outlines the model and highlights the effect of both the capacity and resistance to change. Palthe (2014) asserts that institutional structures should also be analyzed when planning for change to better assess the ability of an organization to change and the potential resistance that would impact the transition.

Figure 1: Conceptual Model of Organizational Change (Palthe, 2014)

Expanding upon the factors that nurture organizational resistance, Ford, Ford and D'Amelio (2008) uphold that those leading change efforts can cause increased opposition to the proposed change. Change leader sense-making can lead to assigning incorrect explanations to employee hesitation. This premature analysis, without thorough feedback and input from employees, could lead to lost organizational agreements, reduced trust and ineffective change efforts (Ford, Ford, & D'Amelio, 2008). The leader needs to appreciate the value of candid employee feedback that challenges the proposed change and the transition process. Neglecting to place the appropriate significance on this input may lead to the presumption of unconstructive resistance. Clearly identifying the reasons for employee concerns ensures that the change leader's suppositions and resulting behaviors do not impact the overall transition process (Ford, Ford, & D'Amelio, 2008).

While these resistance theories focus on the individual nature of employees and managers, Danisman (2010) contends that organizational resistance must be related to the culture within the organization and not just its individual members. Since an organization is a collection of individuals, its culture is the amalgamation of their values, beliefs and understandings. Danisman (2010) conducted a case study in Turkey, assessing the connection between the resistance to change and organizational culture. Despite the efforts of the CEO and the employees to implement a revised focus on professionalism, a direct link to quality management

and a more democratic operating model, the cultural influence within the organization caused inconsistent and inefficient change (Danisman, 2010). In response to these results, Danisman maintains that culture, as the fusion of individual understandings, is a critical component in the resistance to change and to the success of an organizational transition.

To effectively manage change, an organization, needs to understand and manage those forces in support of and opposition to the transition. Kotter and Schlesinger (2008) first offered six methods to manage employee resistance in 1979. These areas included training and communication; participation and involvement; facilitation and support; negotiation and agreement; manipulation and cooperation; and coercion. In their updated Harvard Business Review article in 2008, the authors provide further guidance to apply these methods. Table 1 outlines the proposed situations for each approach.

Table 2: Methods to Manage Resistance to Change – (Kotter & Schlesinger, 2008)

Education & Communications	Used to ensure that accurate and complete information is available if incomplete/inaccurate information is being shared
Participation & Involvement	Used when the change agents do not have all of the knowledge and experience to complete the change and resisters have significant control
Facilitation & Support	Used when organizations are having difficulty adapting to the change
Negotiation & Agreement	Used if a clear loser(s) emerges as a result of the change and that individual or group has significant power
Manipulation & Co-Optation	Used time and or resources are available to manage any of the other options
Coercion	Used if the timeline is considerably short and the change agents have significant power.

Kotter and Schlesinger (2008) assert that these approaches help to cope with resistance resulting from a lack of trust, different perspectives, high risk-aversion and high self-interest. Analyzing all of these factors ensures that managers identify the real motivations behind resistant behaviors and utilize the appropriate tools and techniques to overcome them. Concluding that organizational resistance is based solely on the need to remain unchanged is self-sighted and potentially dangerous (Self & Schraeder, 2008).

II.2 Role of Communications in an Organizational Transition

Communication is also viewed as a central element of any organizational transition (Patton, 2018). Weber, Rachman-Moore and Tarba (2012) assert that increased communications results in an increase employee acceptance and productivity during an organizational transition. Their study of cross-cultural mergers identified an association between increased merger communications and the performance of the acquired company (Weber, Rachman-Moore, & Tarba, 2012). Additionally, in a review of seventy-nine empirical studies related to organizational change, a strong correlation exists between consistent, supportive and effective communications resulted in positive reactions to the change effort by the organization (Oreg, Vakola, & Armenakis, 2011). Oreg et al. (2011) note that these positive reactions include reduced anxiety, increased trust and strengthened commitment to the change.

Equally important is the content of the communication. Oreg (2006) affirms that increased communication, without substantive content, will result in increased negative emotions and behaviors related to the organizational change. Change leaders must focus on both the quantity and quality of their communications during times of organizational change (Oreg, 2006).

Finally, McClellan (2011) emphasizes the need to extend the current view of communications in organizational transitions. The current focus on change communications is tightly associated with the communications provided by the change leader to employees. McClellan affirms that these communications are encumbered, political messages that only provide one-way directional discourse. Change leaders need to encourage ongoing dialogue between themselves and the organization. More importantly, change leaders need to create safe environments for open discourse amongst the members of the organization. This will ensure that

key messages are discussed during two-way conversations and that leaders can assess the disconnect between the resulting discourse and the desired change (McClellan, 2011).

II.3 Employee Emotional Responses to Organizational Transitions

Given the criticality of managing employee resistance, managers must be able to assess the willingness of the organization for change. Organizational change has a significant human element, which combines employee perceptions and attitudes (Katsaros, Tsirikas, & Bani, 2014). Once a change is initiated, employees tend to fear the unknown and start to demonstrate partial, if any, support for the future state (Katsaros et al., 2014). Organizational transitions cause increased levels of uncertainty of potential disruptions in existing policies and practices – inherently forming a complex situation. Since jobs are a connection between individuals and organizations (Mossholder et al., 2000), shifting positions and changing positions structures would lead to individual uncertainty. This uncertainty then leads to employee stress. This stress then leads to exacerbated levels of conflict, which is also heightened during an organizational transition (Anderson, 2006).

In a study of 180 Bell telephone employees, Ashford (1988) identified a significant relationship between the feelings of uncertainty during organizational transition and potential disruptions with employee stress. These negative feelings were amplified when the uncertainty was connected with either the employee's career or their daily tasks. Additionally, these disruptive feelings even existed six-months following the organizational change (Ashford, 1988).

Organizational transitions have the potential to create even larger emotional responses from employees. Kreitner and Kinicki (2010) note that some individuals may be more amenable to organizational transitions while others may be much more resistant. This resistance may be

linked to an emotional response to perceived or real risks to the current operational model (Kreitner & Kinicki, 2010).

While employees demonstrate significant negative emotions during downsizing (Bennett, Martin, Bies, & Brockner, 1995), organizational transitions, without downsizing, can also cause significant emotional reactions, worry and perceived threats among employees (Mossholder et al., 2000). In addition to worry, transitions can evoke more negative feelings than positive ones (Kabanoff, Waldersee, & Cohen, 1995). O'Neill and Lenn (1995) studied mid-level managers and concluded that individuals tend to respond on the extremes of pleasantness during organizational changes. Anger, cynicism, resentment and anxiety are added reactions to the stress of organizational transitions (O'Neill & Lenn, 1995). These emotions are tied to the defensiveness of employees as they worry about job security and role identification (Sasvik et al., 2007).

While some research identifies the connection between negative emotions and organizational transitions (Oreg et al., 2011), Ashford (1988) asserts that positive emotions can support positive responses to an organizational transition. First, employees with a stronger belief in their own skills and abilities are more likely to better manage the threats associated with organizational transition (Ashford, 1988). Additionally, an increased sense of control during the organizational transition experience results in more acceptance of the change (Wanberg & Banas, 2000). Research has also found an association between inclusion and decreased stress levels, support for the transition and an increased willingness to participate in the change (Amiot, Terry, Jimmieson, & Callan, 2006; Coch & French, 1948; Coyle-Shapiro, 2002; Holt, Armenakis, Feild, & Harris, 2007). Finally, management candor, fair-minded business practices

and honest communications lay the groundwork for successful organizational transitions (Beer & Norhia, 2000).

In addition to the type of emotion, the strength of the emotion is also significant. The degree to act or to prepare to act is associated to the level of emotion for the event or change (Taylor, 1991). Since the desire to act is linked to emotional intensity, understanding the intensity of employee emotions is essential to managing an organizational transition. Ashford (1988) also asserts that employees have a higher level of response during organizational change. She affirms that the uncertainty tied to organizational transitions, which impact careers and daily activities, will cause a higher emotional response (Ashford, 1988). In contrast to the positive affect of inclusion, job insecurity has a strong relationship with higher resistance to change (Oreg, 2006) and reduced support for the transition (Gaertner, 1989) .

Further, links can be drawn between emotions and resulting actions. Studying employee emotional responses to events may help to better understand their feelings with respect to the event and their subsequent actions. As an example, developing a sense of ownership in the process of in the resulting organization will increase employee acceptance. Employees who voluntary believe in and commit to organizational change, have more positive response to that change (Dirks, Cummings, & Pierce, 1996). In addition, Dirks et al. posit that when linked to self-enhancement, a change is well received versus when it is forced, considered revolutionary or reduces one's self worth. Avey et al. (2008) extend this concept through their study of one hundred and thirty-two working adults across multiple US organizations. The study identified a clear and significant relationship between positive employee emotions and positive citizenship behaviors (Avey et al., 2008).

In addition to emotion and intensity, the need for a supportive community is important during organizational transitions. Schachter & Singer (1962) affirm that employees concentrate on their social environment to further evaluate their own emotions.

Finally, taking all of these factors into consideration and to ensure positive outcomes, organizations should strive to ensure employee job satisfaction and trust during times of change and transition (Armstrong-Stassen, 2001). Given the difficulty in measuring, balancing and managing these factors, leaders must understand the complicated nature of an organizational transition. Identifying an effective way to combat the elusive transitional environment would be valuable to both the leader and the organization.

II.4 Approaches to Organizational Transition

Within academic literature, researchers have analyzed approaches to organizational change and transition processes to hopefully identify the best approach. Myriad approaches exist to manage organizational change, but a standard method for selecting the right approach does not exist. Further, organizations use a rather haphazard method of selecting the right approach to be used (Pries-Heje & Baskerville, 2008).

Since extensive literature exists related to organizational change, the researcher has distilled the broader body of knowledge and reviewed models that are directly linked to the individual employee. Models related to managing the organizational change with a focus on the individual employee experience provide a closer connection to the focus of this research study.

To begin, Porras advanced a Stream Organizational model, focusing on the relationship between individual employee contributions and overall organizational effectiveness. This open model outlines the relationship between the environment, the work setting (physical, structural, technological and social) and the individual (Porras, 1987). The internal organizational

environment has prominence in this model. Additionally, individuals within the model are empowered to identify problems, assign them to a given category and then drive to find a solution, early recognition of user participation in the change process.

The Model of Planned Change also concentrates on individual employee behaviors, associating them to the organizational vision, mission and beliefs. The model seeks to analyze three changes: organizational targets, individual employee behaviors and needed outcomes (Porras & Silvers, 1991). This model presumes that the organization is at one state and then transitions to another without considering the dynamic and complex nature of these states (Seel, 2000). In response, Seel (2000) posits that in response to the dynamic nature of the organization, the Complexity Theory should be used to manage such changes. Seel's Complexity Theory provides a connection between organizational change, its culture and existing operational paradigms. This model highlights the energetic nature of the organization and appreciates that firm is a living entity, representing the sum of its individual members. This is evident in Seel's description of the model – the direction is not manager to employee or employee to manager, but from the center of the organization out (Seel, 2000).

Combining the structure of the Change Process Model and the dynamic nature of the Complexity Theory, Bloor and Pearson (2004) proffered the Brief Solution-Focused Model. This model affirms that an organizational transition requires three categorical reviews: change discourse (the rationale behind the change), solution discourse (therapeutic interventions needed to motivate the change), and strategy discourse (the prioritized actions required for the change to occur). This approach also holds to the concept that if something works, you should continue to do it. While the approach embraces the robustness of the organization, the method does apply

the interventions associated with therapy, highlighting those external forces that can trigger change (Bloor & Pearson, 2004).

More recently, Patton (2018) proposed a model to manage the negative conflicts associated with organizational transition. The Changes Model specifies seven components to manage and/or eliminate to ensure a more successful transition. Patton merges key factors that are referenced in other research. Communications, help, assessment, new roles, guidelines, education and support are the model's constructs (Patton, 2018). Effective communications are key to minimize uncertainty. Patton references the significance of steady and candid communications for the justification and benefits of the transition. With this consistent clarity, fear and speculation decreases (Galbraith, Downey, & Kates, 2002). Patton further defines help, the presence and willingness to aid current operational duties; assessment, the careful assignment of employees to the right roles; new roles, the transparent description of role expectations; guidelines, the creation of new roles and policies if needed; and support, the open dialogue between the employee and management related to concerns, fears and feedback. While it primarily focuses on reducing conflict, this model may miss some of the other dynamics associated with organizational transitions – inclusion, market dynamics, and environmental forces.

Table 3: Approaches to Organizational Change/Transition

Method/Approach		Description	Advantages/Disadvantages
Stream Organizational Model	(Porras, 1987)	Model highlights the connection between the individual's performance and organizational effectiveness and the responsibility of the organization to the employee	(+) Ties the change to the individual employee's contribution to the organization performance and the change (+) Allows employees to participate in the change process (-) Less focus on the external environment

Model of Planned Change	(Porras & Silvers, 1991)	Model links key components of the change to individual behaviors which impact the overall organizational outcomes	(+) Incorporates key factors of those components associated to change management within an organizational transition (-) Does not capture the full robust nature of the transition
Managing Organizational Redesigns	(Flamholtz, 1995)	Model combines the Pyramid of Organizational Development and the organizational life-cycle model to create an enhanced way to manage redesigns	(+) Extends the two models to create a single model focused on the critical tasks required for organizational success and the seven stages of organizational growth (+) Allows for a review of organizational growing and/or aging pains (-) Focuses upon human resources role in managing employee needs versus management overall
Complexity Theory	(Seel, 2000)	Model considers the intricacies of organizational culture and adopted paradigms and their influence on change	(+) Fully incorporates employees into the process
Brief Solution-Focused (BSFOR)	(Bloor & Pearson, 2004)	Pragmatic approach to organizational transition using a consultancy/therapy approach	(+) Combines therapy, transition and complexity theory (+) Embraces the dynamic nature of the organization (-) Focused on client-consultant relationship which may not apply to all situations
Changes Model	(Patton, 2018)	Five-step approach to manage an organizational transition	(+) Focused on the role that conflict plays in an organizational transition and mitigating those influences to ensure success (-) Singularly focused approach

These models outline potential approaches to an organizational transition, taking into consideration the employee involvement, the impact of the employee on the proposed change and the change on the employee. Table 4 summarizes these approaches for an easier

comparison. Unfortunately, limited detailed guidance and few tools are provided to ensure employee inclusion or to build full employee engagement in the organizational transition. These models provide theoretical frameworks for effective transitions without recommending concrete instruments to address the most important aspects of a transition – employee engagement. This gap provides an opportunity to address the need for practical tools and approaches for design thinking given the importance of employee engagement. In respect to this gap, Plaskoff (2017) affirms that design thinking may be a way to ensure employee involvement and inclusion.

III STUDY FRAMEWORK

III.1 A Potential Approach to Solve Complex Problems

Unlike other problem solving solutions, design thinking serves as a model process to use an "organic flow" of creativity and invention to address tangible challenges (Buchanan, 1992). Reviewing design-thinking discourse, there are two methodologies. Academics embrace the concept of design thinking as the way in which designers think and apply their tools and techniques (Johansson & Woodilla, 2009). This academic and scientific approach can be applied to three areas – the design of visual communications, the design of objects and the design of activities and services and the design of complex systems (Buchanan, 1992). In the early 1980's, the designer's approach to problem solving started to evolve into the methodology of design thinking (Kimbell, 2015). Linking the designer to the end user, design thinking is a discipline that utilizes a designer's sensibilities, processes and techniques to satisfy a customer's need. Satisfying the customer need should therefore result in generated value for the customer and the organization (Tim Brown, 2008b). Additionally, the designer crafts a solution that balances desirability, viability and feasibility. The iterative design process is a way to ensure these three deliverables are met (Tim Brown, 2008a). With this balance, designers are then expected to identify novel solutions, manage ambiguity, utilize practical forethought and apply modeling techniques to find solutions (Cross, 1990).

Although Badke-Schaub et al. (2010) state that no uniform list of design activities exists; the design community accepts a theoretical understanding of the design process. Inspiration, ideation and implementation capture the common activities within the design process (Tim Brown, 2008b). First, the designer must obtain user input to better define the problem. Through the ongoing process of communications, prototyping and testing the designer can then develop a

final design proposal to resolve the problem. Testing further confirms the appropriateness of the solution and the potential need for additional refinements. This iterative process ensures that potential solutions support the further refinement of the problem, which leads back to the subsequent refinement of the solution (Cross, 1990).

Johansson and Woodilla identified a second discourse within the design-thinking discussion. Management discourse established a method that can be applied across myriad processes and approaches (Johansson & Woodilla, 2010). These processes serve to improve managers' skills to leverage a designer's systematic approach at innovation and creativity. Hassi and Laakso further refined the differences between design and management discourses through ten expert interviews with six design practitioners and four academicians from Finland, the Netherlands and the United States. From these interviews, academic participants expressed concern over the existence of two discrete approaches with the same name – design thinking (Hassi & Laakso, 2011). In response, the researchers further refined the management discourse to identify three important components. Practices, thinking styles and mentality were highlighted as the key elements of the management discourse. Practices relate to process – visualizing, collaborative work, thinking by doing and user-centered focus (Hassi & Laakso, 2011). Thinking Styles tie to those highlighted in the design discourse – abductive reasoning, reframing and strategic viewpoint. Third, mentality captures soft skills for both the individual and the organization – positivity, future orientation, comfort with ambiguity, and willingness to experiment and explore. This split in the definition of design management caused much anxiety concerning what it should and should not be (Cooper, Jungunger, & Lockwood, 2009) and is still debated within the design community.

Additional research has attempted to define the evolution of the design thinking management discourse. Researchers from the Design Management Institute and the University of Virginia's Darden School of Business conducted a study in 2010 to assess the impact of design thinking within the business community. The study highlighted the ongoing debate between these two discourses. Surveying a small group of design and business executives, the researchers confirmed the dispute between design and the application of design broadly in any business application. Initially, team believed the design thinking would have been applied similarly to total quality management (Carr, Halliday, King, & Liedtka, 2010). They hypothesized that design thinking had become a systematic process and evolved as total quality management did following its introduction by Deming. In contract, Carr et al. only affirmed that executives fell into two categories, those who believed that design was primarily owned by designers within the organization as opposed to those who believed that the process of design could be used by other functions. The researchers noted that those who followed the first philosophical viewpoint also believed that no value existed teaching non-designers how to leverage the design toolbox (Carr et al., 2010). The differing views support previous assertions that for the process of design thinking to become embedded into business operations, the term must move beyond catchphrases and become a valued business process (Cooper et al., 2009).

Further, businesses need to leverage both an analytical (logic-based) and intuitive (imaginative) approach to problem solving. Design thinking creates an interchange between these two approaches to provide a richer outcome (Martin, 2009). Martin also explains that businesses can use exploitation and exploration skills to enhance performance. Exploitation ensures the analytical review of existing experiences and expertise to enhance current systems. Martin further explains that this type of analysis focuses on reliability and experience.

Analyzing and enhancing practices to certify reliable outcomes is a key deliverable for any business. Managing a blood-testing laboratory serves as an example for this focused approach. Business performance depends upon consistent practices and trustworthy test results.

In contrast, exploration provides an opportunity to utilize intuition and hypothesis to investigate future, long-term possibilities (Martin, 2009). Within exploration, validation takes focus, forcing the business to work to meet the required outcome. Achieving the desired outcome requires more than just quantitative date. Nuance, insights and subjectivity are a part of this thinking approach (Martin, 2009).

Martin references the development of Pampers at Proctor and Gamble. At the time of its launch P&G's Pampers were an innovative product for parents. Pampers provided a revolutionary product, as a result of exploratory work by the company's R&D organization. Following the launch, P&G's engineers moved into an exploitation mode, identifying ways to improve the existing product. Both approaches are important to the business success and should be combined to satisfy the need to meet short and long-term objectives. Martin (2009) asserts that this combination is found within design thinking.

Given this connection, a growing trend exists of applying a design thinking approach within a broader business context (Cooper et al., 2009). Cooper et al. (2009) also assert that design has moved beyond a product design focus, valued within a product development context, to a design-thinking environment, where transformation is required. With this renewed focus, design thinking is no longer tethered to only product development. Also, the business application of design thinking has evolved from a manufacturing or product context, to include marketing and branding and to now incorporate organizational and society applications (Cooper et al., 2009).

Martin also contends that deductive and inductive logic is insufficient to address the growing complexity in the marketplace. Deductive reasoning allows business leaders to start with general theories and work toward a conclusion based on supporting evidence. Sales managers use deductive reasoning when approaching customer issues. Starting with a theory of the issue (quality problems, communication missteps, project delays, etc), managers collect data and further evidence to clearly identify the reasons behind the customer issue and to verify their initial hypothesis. In comparison, inductive reasoning provides a framework for managers to begin with a question or observation and then work their way to a theory. Marketing managers use inductive reasoning when then make broader inferences related to overall markets based upon specific customer trends, feedback and behaviors.

Both approaches rely upon available facts and evidence, however. Unfortunately, complex problems associated with novel subject areas and technologies or those requiring innovative solutions are not solved only with evidence. Problem solvers need to use adductive reasoning to make bold leaps in their problem-solving approach (Martin, 2009). Introduced by Charles Peirce, abduction is a combination of scientific discovery as a result of systematic observation and creative inference (Van de Ven, 2007). Designers use abductive reasoning to resolve ambiguous and amorphic challenges (Martin, 2009), which is now required across multiple business disciplines.

III.2 Design Thinking as the Appropriate Approach

When dealing with highly complex situations, proper framing is essential to successfully meeting the challenge. Design thinking stresses the importance of an in-depth understanding of the problem area and the need to get first-hand, human-centered knowledge of the issue. This allows the business manager to be better prepared to address complicated circumstances (Dorst,

2011). Cooper et al. (2009) agree that design thinking is a way of understanding, seizing and solving these issues. Fred Collopy agrees that design thinking is another toolset that allows managers to tackle new and highly complex problems. While the current management toolset is based upon years of research, given the changes in the types of business challenges, business schools and professors should offer an expanded methodology to leverage the design-making paradigm (Collopy, Boland, & VanPlatter, 2005).

The application of design thinking also supports the desire to implement larger step change and not just incremental advances (Brown, 2008b). Design thinking is a solution-focused methodology used by designers to address complex problems (Kolko, 2015; Lawson, 2006). The approach incorporates an innovative human-centered methodology (Brown, 2008a; Brown & Wyatt, 2010) that draws from the designer's toolbox (Melles, Howard, & Thompson-Whiteside, 2012), integrating empathy, building upon logic and creativity and incorporating iterative experimentation to solve complex issues. Design thinking is active and solution orientated, meaning that possible resolutions to issues are identified early, to allow for a sufficient 'testing out' of these alternatives, often before a problem has been adequately researched (Dorst & Cross, 2001; Lawson, 2006). Lastly, Don Norman, the director of The Design Lab at the University of San Diego, also notes that during the design-thinking process, designers use the original problem as only a suggestion as they seek to jointly resolve the issue, while also refining the problem (Soegaard, 2018).

III.2.1 *Design Thinking and Organizational Transition*

Given the complexity of human resource issues and the need to garner the employee experience as a representation of the customers' voice, design thinking may be a way to move beyond immediate, short-term fixes to enhance employee engagement (Plaskoff, 2017). Plaskoff

asserts that the employee experience is more like a journey that has many landmarks and interfaces. Utilizing design thinking as a tool to resolve human resource challenges, while building employee input, is essential. Plaskoff (2017) also notes that the relationship between the employee and the organization must be renewed from one that is transactional to one that appreciates the complex nature of the employee relationship. He affirms that design thinking requires a deep understanding to employee needs, encompasses all-inclusive thinking, requires innovative participation, includes experimentation and is based on trust – the embodiment of a comprehensive process to address human resource challenges (Plaskoff, 2017).

III.2.2 *Design Thinking and User Participation*

User participation or co-design has been discussed within the design community for several years. During user participation, designers incorporate users into their design process to either create an opportunity to resolve complex design challenges (Ehn, 2008) or to establish a "use-before-use" opportunity to test a concept during the actual design (Redström, 2008). Ehn references the new use of record players by disc jockeys as an example of use design. Instead of being used as a mechanism to listen to music, disc jockeys expanded the use of record players to actual instruments to create new music. This application then extended the design parameters of the record player to allow it to become a more efficient instrument (Ehn, 2008). In essence, the user identified and created a new application for an existing item – serving as an example of the definition of use through the actual use of the product (Redström, 2008). This approach has led to the extension of design, the

While co-design is an evolving concept within the design community, user participation is not as prevalent in the design thinking arena. After an extensive literature search, only a few research studies were identified, incorporating end users into the design thinking process. One

employee-related research project was related to a study in Copenhagen, Denmark. Våland and Georg affirm the value of user participation in a design thinking approach. The three-year ethnographic study utilized group meetings, semi-structured interviews, surveys and fieldwork to assess the impact of employee involvement in a building construction project. Incorporating employee involvement ensured that their feedback and insights were openly shared and that they could influence both the change and the experience (Våland & Goerg, 2014). In addition, the participation also provided an opportunity to develop supporters for the upcoming change. This application extends user participation in that extensive, empathetic user intervention are a critical step to the design thinking process.

These concepts therefore lead to the study's research question: How can design thinking enable a situated approach to organizational transition? Secondly, how will can design thinking support employee participation during organizational transitions?

IV RESEARCH METHODOLOGY

IV.1 Engaged Scholarship and Qualitative Research

The combination of scientific theory and practical application are critical to the joint creation of knowledge. This joint creative environment or learning community assists in the shaping of relevant information, which stands up to the rigor of the academic community (Van de Ven, 2007). Boyer (1990) upholds four facets of scholarship: discovery, teaching, application and integration. Extending this definition, Boyer adds engagement to the facets of scholarship or the ability to relate the theory of scientific exploration to its relevance and application within the practical world (Boyer, 1990).

Based upon this definition, applying design thinking to a practical industry problem is a solid example of active research within the context of engaged scholarship. Leveraging the value of design methodologies to spark creativity and generate innovative solutions, this study utilized the design thinking management discourse approach to apply a design methodology to organizational transitions. This approach allowed for the application of a systematic design process to address a complex practice or situation (Buchanan, 1992). Given the investigative nature of this analysis, the desire to gather in-depth information and the need to elicit creative ideas, the researcher conducted a qualitative research study (Myers, 2013). This qualitative approach presented the what, why and how versus the how many and how often (Golden-Biddle & Locke, 2007; Miles & Huberman, 1994). Qualitative data also allows researchers to refine existing theory by examining the complexities and processes of actual behavior (Eisenhardt & Graebner, 2007; Marshall & Rossman, 2014).

To ensure that this study followed an engaged scholarship methodology, the researcher completed the Template for Research Design, which defines the essential components of engaged

scholarship research (Mathiassen, 2017). Following the acronym P-A-F-M-RQ-C, the researcher addressed each component of the study design to support the engaged scholarship effort. In addition to targeted journal(s) and the research title, Mathiassen (2017) outlines six components of engaged scholarship research design that combines academic rigor with real-world challenges. 'P', the problem setting, first establishes the practical problem or situation. 'A' represents the area of concern within the problem setting. Next, 'F', or the conceptual framing, sets the structure for data collection and analysis. This framing can focus on inputs within or outside of the areas of concern. Mathiassen (2017) continues the design outline with 'M', or the method used for experimental inquiry. 'RQ' represents the request question and how the problem connects with the area of concern and ensures a research design. Finally, 'C' serves as study contributions that could impact the problem and area of concern. The Template for Research Design is included as Appendix II.

Finally, as an organizational insider and one that also planned to participate in the research, the researcher followed a collaborative, basic research methodology. This approach better aligned with the required operational set up for a study that shares information with research stakeholders. The researcher was inherently a part of the research process, both as a member of the organization and as an active participant in the research method. Also, no action, intervention or evaluation components existed. Due to these primary reasons, a collaborative study was the appropriate research method.

IV.2 Case Study Method – A Field Study Approach

Yin (2014) posits that research should utilize the case study method when a need arises to understand "complex social phenomena". Further, the case study method differs from other qualitative approaches because the approach can incorporate two additional types of evidence:

(1) direct observations and (2) interviews of the participants involved in those events (Yin, 2014). As a preferred qualitative research approach and adding that the researcher was also a practitioner, a close tie exists with regards to the understanding of the phenomenon, the importance of the problem area and the appropriate application of research findings.

Given the exploratory nature of this study, that it was conducted in a real-world environment and that a desire existed to harvest a more thorough understanding of the participant experience, the researcher will utilized single-case study methodology. Additionally, the research adopted a chronological approach to reviewing and presenting study findings, since the study followed the chronological flow of a design thinking process.

Three forms emerge within the context of research methodology: constructivist, objectivist and postpositivist (Charmaz & Belgrave, 2012). Reviewing these three approaches, the researcher applied a constructivist approach to the study, in response to the researcher's long standing relationship with FirmX. As a member of FirmX for more than two decades, it would be foolhardy to believe that the researcher was a completely impartial observer. Part of a researchers' 'humanness' is that they are a part of the research process and that they must understand and appreciate that connection while conducting the research (de Laine, 1997; Mills, Bonner, & Francis, 2006; Stratton, 1997). Constructivist researchers believe that the most important facet of the research is the research question and that the findings of the research is generated with the interplay between the data and the analysis itself (Myers, 2013).

In contrast, objectivist researchers believe that the researcher is a neutral part of the research process. Given the longstanding relationship of the researcher, this approach was not fitting. Finally, a postpositivist methodology leads to the creation of grounded theories based upon empirical findings from the qualitative research (Charmaz & Belgrave, 2012) and

represented the approach related to this study. The goal of this study is to obtain a much deeper understanding, through employee engagement, of the impact of the design thinking on the organizational transition process.

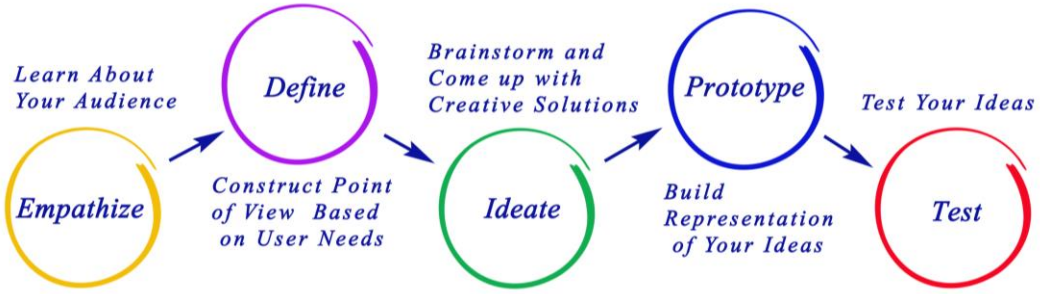
Being mindful of this approach and as a manager in FirmX, the researcher will apply triangulation to the review and analysis of study data. Triangulation of participant accounts helps to alleviate personal biases (Eisenhardt & Graebner, 2007; Miles & Huberman, 1994). Interview feedback, organizational survey data and observations during participant sessions should provide an opportunity to conduct method triangulation, resulting in an improved synthesis of the study findings (Denzin, 2001).

IV.3 Design Thinking as the Process

Aligned with the design thinking phases, the study was managed in two segments. These phases ensured the collection of individual perspectives and organizational concerns and then transition to a more encompassing, novel approach to an organizational transition within FirmX. This approach allowed for the identification of an innovative activity or event and then offered an efficient way to corroborate this approach with the entire employee group (Morgan, 1996a). Specifically, the research utilized design thinking concepts to challenge the status quo and hopefully extract novel approaches to organizational transition challenges.

The design thinking process has five phases: Empathize, Define, Ideate, Prototype and Test (Dam & Siang, 2018). These phases are highlighted in Table 4.

Table 4: Design Thinking Phases



Empathize	Empathize phase is the gathering direct user input, feedback and insights into a need, gap or problem. Example: Healthways, a global healthcare company, sought to find an improved socially networked way to connect patients to support systems. To better understand the challenge, the organization created MeYou Health and embarked on a detailed interview process with thirty-six candidates to further understand social networking issues related to healthcare problems. These empathetic interviews led to a more sophisticated list of user characteristics and seven segmented classifications of user concerns (Liedtka, King, & Bennett, 2013)
Define	During the Define phase, the team is refining the data gathered during the Empathize phase to craft a user Point of View related to the overall need(s) and a clear definition of the problem. Example: Amplifon, the makers of Miracle Ear identified that they were missing a growing customer base, younger individuals who were losing their hearing because of ear buds and loud music. During the define stage, the team determined that a need existed to not only address the needs of those who have lost their hearing, but to also help to decelerate hearing loss for all customers (Lockwood, 2010). This expanded definition of the problem allowed Amplifon to focus on a broader problem for its entire customer base.
Ideate	Ideating is the creation of new ideas and the transition from describing problems to generating numerous, creative ideas to potentially solve them.
Prototype	Prototyping is a quick, hands-on and iterative evaluation process to refine a concept to further match user needs. Example: Shonaquip, an organization that makes products for children with severe mobility challenges, used the design thinking process to develop potential prototypes that were less bulky and were easier for caregivers to use. To assess the prototype, the team traveled to South Africa where it quickly discovered that the prototype design was not effective in field application. The team then used a local Shonaquip manufacturing facility to incorporate immediate caregiver feedback into its prototyping process. (Hasso Plattner Institute of Design, 2017)

Test	Validating the effectiveness of proposed solution to resolve user needs. Example: T-Mobile applied prototyping and testing when it launched its social media platform prior to similar products in Eastern Europe. Brown (2008a) notes that testing the social media platform on spreadsheets and storyboards would not have secured the required feedback. T-Mobile loaded cellphones with the prototype and asked users in Slovakia and the Czech Republic to test the system (Tim Brown, 2008a). Within two weeks, T-Mobile designers were able to ascertain which prototype was superior and could be launched.

Final implementation completes the iterative cycle. The success of Bank of America's "Keep the Change" program validates the link between identifying user needs and creating a product to meet them. This program provided a new way for consumers to electronically save change from every day purchases into a bank account. One year after implementation, Bank of America was able to secure 2.5 million customers, 700,000 new checking accounts and one million savings accounts based solely on the need for customers to better manage loose change (Tim Brown, 2008b).

For the sake of this study, phases two, three, four and five was incorporated into two distinct segments – Define & Ideate and Prototype & Test. First, an intact, employee team, as part of the overall change management process, conducted employee interviews to gather employee feedback with respect to the pending transition. These interviews were conducted before the start of this study. An employee design team then utilized this pre-existing interview data to refine the feedback and insights from business unit employees. Next, the team used this input to further define the challenges employees face given the upcoming organizational transition. This led to the team generating original solutions to the refined problem statement.

The design team then moved into the third segment of the study, Prototype and Test. Following the T-Mobile test example, the team ran through prototyping sessions to refine its

idea. Finally, the group tested the concept by hosting a live event with the remaining organization. The researcher captured feedback from the design team and event participants to ascertain the impact of the designing thinking process as well as the actual event.

To facilitate dynamic group interactions, general questions from the existing semi-structured interviews were utilized to initiate discussion amongst the design team. The researcher played a limited role in the discussion, which allowed participants to pursue and discuss their feedback from the interviews, prioritize the feelings and generate new ideas and concepts (Morgan, 1996b).

Referencing appropriate trends and feedback from the first set of interviews, the researcher organized a group discussion, based on design thinking principles for Define and Ideate. An introductory primer on focus groups advances that this approach provides an opportunity to transition from individual insights to operational solutions (Kitzinger, 1995). Kitzinger also recommends that utilizing a diverse group allows for an evaluation of varied opinions and experiences. Utilizing designing thinking methodology with a group approach, linked input from the Empathize phase with the innovation session. Further, since the study objective was an exploratory discussion of organizational transition challenges and not generalizable findings, combining a focus group approach afforded the possibility of gathering shared perspectives concerning employee concerns and ideas (Morgan, 1996b).

Taking this into consideration and applying design thinking principles, the researcher facilitated a deep dive in problem definition. The group then discussed the overall challenges and crafted a detailed problem statement. Once the problem was clearly defined, the team transitioned into an Ideation session to develop creative solutions to the issues. The researcher utilized tools from the Hasso Plattner Institute of Design to lead the team through this ideation

session. Brainstorming, leaps to insights and Point-of-View checks ensured that the team formed innovative concepts based upon the information from the employee semi-structured interviews.

IV.4 Data Sources

The research utilized four data sources –employee semi-structured interviews, field observations, team interviews and an employee survey. For the Empathize portion of the process, the researcher accessed existing semi-structured employee interviews. Conducted by the participant Team at the beginning of 2019, these interviews sought to gather insights and feedback on previous organizational transitions in addition to those feelings and emotions associated to the current process. Phase 2 – Define and Ideate analyzed the data from the previously collected, semi-structured interviews. The researcher gathered observations during Phase 2. These observations, in additional to the coded interviews, following prototyping and testing, established clear trends and overall employee concerns. Data sources are highlighted in Table 5.

Table 5: Data Sources

Data Sources		
Phase 1 – Empathize	Existing Semi-structured Interviews	○ FirmX employee interviews with respect to overall organizational transitions – collected as a normal course of business within the organization
Phase 2 – Define and Ideate	Field observations	○ FirmX design team participated in a definition and ideation sessiom. Observations were captured as well as notes from the session.
Phase 3 – Prototype and Test	Employee Team Evaluation - Semi-structured Interviews	○ Semi-structured interviews were conducted with the design team to gain more in-depth insight into the impact of design thinking on their overall experience and on their feelings with respect to the organizational transition.
	Employee Feedback Survey	○ Brief employee survey following the prototyped activity. This survey was distributed at the end of the session to capture immediate feelings, comments and concerns.

IV.5 Participant Selection

Within the firm, an intact, employee team serves as the lead to gain feedback from employees and communicate these pulse checks with business leadership to ensure an ongoing communication link between the leadership team and the employee population. This team consists of ten to fifteen representatives from various functions and departments within FirmX. More specifically, team members serve as the spokesperson for their functional areas and sub-teams, sharing feedback between organizational leadership and the rest of the organization. The team is chartered with analyzing input from the organization, taking a continual pulse check of employee feelings and engagement, creating activities and programs to improve employee engagement and garnering feedback from these activities to assess their impact and success.

Given the representative nature of the employee team and the fact that it is an intact team, this group was the most appropriate collection of employees to work through the ideate, prototype and test stages and then provide their input concerning the impact of the design thinking process and the prototyped activity on them as both the cultural team and as an organizational representative.

Finally, participation in the study was voluntary. The employee team received a survey introducing the study to elicit their support and involvement. The survey included detailed study information, providing full disclosure to minimize any potential affects from of the researcher on the team (Miles & Huberman, 1994). Following recommendations from the International DMI Education Conference roundtable session, this invitational survey included (1) explaining the value and role of design, (2) reviewing how this design activity relates to the organization, (3) communicating the team's roles and (4) defining the time and space allowed to follow the design thinking process (Cooper et al., 2009).

The researcher also shared the following anticipated time commitment of fourteen to fifteen hours to ensure complete transparency:

- Six to eight hours in ideation and prototyping session(s) with the design team
- Two hours to plan the activity/employee event(s)
- Four hours to conduct the activity or session(s)
- One-half hour to provide their individual feedback

Those who responded favorably to the survey, completed the enclosed consent form and participated in Phases 2 and 3 of the study.

IV.6 Data Analysis – Phase 1 – Empathize (using secondary data)

Empathize, design thinking's first phase, includes the deeper and thoughtful review of the problem area. This requires interviews of users and stakeholders in addition to a visual review of the situation, process, usage, etc. The Empathize stage ensures that the process begins with a human-centered approach. Collecting feedback, emotions, experiences, and behaviors from users is critical to an effective process (Tim Brown, 2008a).

Phase 1 included existing semi-structured interviews with employees, as outlined Section 4.3. Firm X has an intact, employee team that collects and analyzes employee feedback to share with business leaders. In response to their role within the organization, members of this employee team conducted interviews with employees to gather information, assessing colleague challenges and fears related to the upcoming organizational transition. Pairs met individually with fifteen to twenty employees and discussed each employee's emotional journey during a transition (Some interviews are yet to be completed before this study will begin). Each employee drew their journey between positive and negative emotions, describing the triggers for each and any actions taking in response. The Chart Your Experience form was used to capture the interview responses.

Semi-structured interviews were used to allow the interviewers to have a general interview framework and then have flexibility to adapt the questions to the nuance of the interview (Charmaz & Belgrave, 2012). Limited questions were asked to ensure that the employee had the freedom to provide deep and full insights. Charmaz and Belgrave (2012) also note that interviews are combined to tell a story. These interviews are not to be used in an individual context, but as part of the whole investigation.

Since an empathetic focus allows the interviewer to better understand the context and multifarious nature of the user (IDEO.org, 2015), combining this approach with a semi-structured format afforded members of the employee team an opportunity to gain a more in-depth understanding of their colleagues' concerns, fears and emotional connections to organizational transitions.

IV.7 Data Collection and Analysis – Phase 2 – Define and Ideate (using primary data)

The Define and Ideate portion of the study required program participants to participate in a Define and Ideation session(s). This session was a free-flowing discussion, summarizing the input from the Empathize phase. For the sake of this study, the same intact, employee team was used as the design team for the remaining project phases. First, the employee design team reviewed this secondary data to identify commonalities and key focal areas from the semi-structured employee interviews. The team assessed trends related to employee thoughts and feelings as well as what they actual heard and visualized during the interviews (Bland, 2016).

As they drew group conclusions, the Define portion of design thinking allowed for open dialogue within the team. This open dialogue and trend analysis required Leaps to Insights – taking those items which may have been a surprise and defining an inferences or perceptions from the combined interview information.

Once insights are identified, the team created a singular problem statement that adopted the most important themes – as identified by the design team. The team created a Point of View, the actionable depiction of the problem statement (Hasso Plattner Insitute of Design).

With the problem definition established, the team proceeded with the Ideation step. This step allowed the team to brainstorm and build upon each other's ideas. Using "yes, and…" versus "Yes, but…" the team will demonstrate support for each other's ideas and contributions. This acceptance forced new and creative ideas by expanding upon each new concept. This positive acknowledgment also supports individual creative confidence or the ability to make intuitive jumps to find novel solutions (IDEO.org, 2015). Plaskoff (2017) also notes that this ensures that the Ideation step fuses different perspectives and enables acceptance of transformational ideas.

During Phase 2, the researcher will also capture design team behaviors and actions using participant-observation. This method of collecting qualitative data takes into consideration the active role of the researcher in the study activities. Participant-observation lies between the researcher purely observing study participants and becoming fully enveloped in the study protocol, completing blurring the line between researcher and participant (DeWalt & DeWalt, 2011). As the Define and Ideation session facilitator, this researcher had the opportunity to capture observations within the actual case study. The researcher had a somewhat active participation in study activities, but only serving to facilitate the team's design thinking experience. The close proximity to study activities provided a more valuable experience to gain inside perspective (DeWalt & DeWalt, 2011; Yin, 2014) and supported the concept of a field study (Whyte, 1984).

To ensure observations and actions were captured accurately, the researcher took field notes during Phase 2 and Phase 3. Breaks were scheduled between activities to allow time for the researcher to capture participant interactions and behaviors and to review the notes before discussions continued.

While this may be considered an invaluable position for a researcher (Yin, 2014), the researcher worked to reduce potential bias while collecting observations. These observations were used to further evaluate individual participant interviews later in the study. Since the researcher has a partial role within the study, accurately gauging interactions while in the group setting and then individually with each participant was critical (Becker, 1958). Capturing these unsolicited observations served as an additional method to confirm participant views and comments, reducing potential bias.

IV.8 Data Collection and Analysis – Phase 3a – Prototype

The design team then started Phase 3 and began prototyping their new concept. This stage of design thinking required improvisation. David Kelley from Apple notes that this should be considered "thinking with your hands" (Tim Brown, 2008a). The team quickly ran through the proposed event/launch to evaluate the idea and further refine the concept. The team worked to create a rapid model of their activity, to assess and gain quick feedback to continue refining their concept (Tim Brown, 2008a). The Team members adopted roles during the run through to determine the impact of each facet of the concept. During prototyping, the design team will ardently keep the voice of the customer in mind. The team also invited one to two other employees to "attend" the prototype program in order to gain immediate feedback from their users. This immediate feedback supported the concept of iteration, a key aspect of design thinking. This rapid prototyping cycle, with input from other employees, encouraged the

development of a concept tightly linked to the original, empathetic input from the employees (IDEO.org, 2015).

IV.9 Data Collection and Analysis – Phase 3b – Test

Following Prototyping, the team conducted its innovative activity or launch related to the upcoming organizational transition with the entire employee group. Based upon the Define and Ideate Phase, this was a custom-designed experience for FirmX employees.

After the session, the researcher interviewed each design team member to assess the impact of both the design thinking process and their feelings about the potential prototype. These interviews should provide further personal explanations regarding each member's experience during the process (Yin, 2014). Further, participant interviews created an opportunity to conduct a deeper review, from the participants' perspectives, of social events to ensure a more thorough framing of the experience (Becker & Geer, 1958).

Since in-depth and thoughtful responses are critical to the study, the researcher endeavored to establish an open and trusting environment. Within this context, interviewees were more willing to provide candid and thorough feedback (Myers, 2013). Myers (2013) suggests using a listen, prompt, encourage and direct approach to gain these valuable insights. Interview questions are outlined in Table 4. These open-ended questions avoided reflexivity between the research and design team members. Since engaged research is a combination of analyzing both the questions and responses, these questions pull from a serious of recommended questions from Kathy Charmaz (Charmaz & Belgrave, 2012). These open-ended questions also provided a better opportunity for design team representatives to more fully communicate their opinions and feedback (Mossholder et al., 2000) concerning the design thinking process and the prototyped activity.

Table 6: Design Thinking Follow-up Questions

Team' Activities:	○ How did the design thinking process impact your approach to organizational transition? ○ What comments do you have related to the actual pilot session? ○ What comments do you have concerning your participation in the transition process? ○ How would you assess the team's participation in the process?	Charmaz & Belgrave (2012) Open-ended questions
Organizational Transitions:	○ What comments do you have related to the overall approach to this transition? ○ What comments to you have on the organizational transition? ○ How does this compare to previous transitions?	Charmaz & Belgrave (2012) Open-ended questions Mossholder et al. (2000) Emotions in Organizational transitions
Elicit further insights and project recommendations:	○ After reflecting on your experiences with this transition process, what else would you like to add? ○ What comments do you have related to this study or the research process? ○ "Is there anything else you would like to ask me?"	Charmaz & Belgrave (2012) Ending questions

The researcher transcribed each interview, treating each as an individual narrative (Eisenhardt, 1989). After transcription, the researcher saved the interviews in NiVivo, a program to support computer-aided textual analysis (CATA), to ensure an efficient review of the transcripts and to facilitate the coding process. Sotiriadou, Brouwers and Le (2014) support the selection of NiVivo as an effective tool when using a smaller sample size and for semi-structured interviews. NiVivo also ensures that the researcher has a close association with his/her data, requiring them to manually review the information and affording them an opportunity to effectively conduct grounded theory research (Sotiriadou, Brouwers, & Le, 2014).

DeWalt and DeWalt (2011) assert that the development of codes from observations and interviews is a critical step for effective analysis. Coding interview responses will extract data, identify trends and allow the researcher to analyze the information and pose further analytical questions (Charmaz, 2014). The researcher coded each interview, incorporating substantive, open coding. Using descriptive coding, single descriptive meanings were assigned to words and passages from the interviews (Miles, Huberman, & Saldana, 2014). Interviews were splintered and analyzed to extract emerging concepts and overarching categories (Holton, 2007). As codes and themes are identified, Holton asserts that coded items be compared to one another to ensure theoretical saturation. Theoretical saturation ensured that continual comparisons are made of key concepts. Holton notes that this iterative process ensures that a continuous comparison occurs with respect to the codes and categories until no new associations are identified. This continuous comparison further revealed the nature of the code itself.

Once no new codes or categories emerge, the researcher analyzed the codes and categories to potentially identify relationships between the concepts and themes. The researcher utilized memoing to capture theoretical notes that help to establish connections between categories and codes. Memoing captured surfacing classifications – a critical requirement for process of qualitative research (Glaser, 1978).

The compiled results from the design team member's semi-structured interviews created a textural database, which was used for further and deeper evaluation (Mossholder, Settoon, Harris, & Armenakis, 1995). Following coding, the researcher drew inferences related to contextual participant responses based upon the associations drawn from Mossholder et al. (2000) study of one hundred and seventy-three executives following an organizational transition. Mossholder conducted interviews of company managers from a Midwestern, Fortune 500

company. Participants represented six functional areas, included manufacturing, technical teams and commercial units with an average age of 46.8 with 19.8 years of experience. Like FirmX's transition, this midwestern organization also moved from a centralized organizational structure to decentralized units. Study researchers conducted semi-structured interviews four months following the organizational transition and the downsizing of ten percent (10%) of the previous workforce. The analysis included a text-based approach to study the emotions of managers in a significant organizational transition and focused on pleasantness and arousal and the impact of these two emotions on study participants, linking job satisfaction, job involvement, job turnover intention and change activity assessment to word usage and frequencies.

While the referenced study was a quantitative approach to link manager responses with their subsequent emotions, the researcher used this study as a basis from which to formulate her own inferences from the design team semi-structured interviews. These inferences led to further refined insights into the overall meanings and associations of the participant experiences. These insights established a patchwork of interconnected deductions and common concepts.

Additionally, to ensure that the meanings of textural passages are accurately explained, larger passages were analyzed in addition to individual words (Whissell & Dewson, 1986). Balancing these two approaches, the researcher took into consideration and referenced specific words, when appropriate, while also analyzing larger blocks of transcript. Since the search required finding clues related to participants' emotions, the Dictionary of Affect Language was also referenced. This original dictionary reviewed over 4,500 English words and rated them on evaluation (pleasantness) and activation (arousal) context (Whissell, 1989). The updated Dictionary has 8,742 words and increased the ability to match words by ninety percent (90%)

(Whissell, 2009). On a three-point scale, the pleasantness of a word or series of words is rated from 1 – unpleasant to 3 -pleasant.

Finally, the design team collected input from the employees to gain immediate feedback from the prototyped products and/or session. While the feedback from the design team serves as the overall assessment for this study, survey results from the entire employee population further mirrored the findings from the design team members.

Table 7: Employee Prototype Design Follow-up Questions

Employee Survey	○ What comments do you have related to today's session? ○ What comments do you have on the organizational transition? ○ What comments do you have related to the overall approach to this transition? How does this compare to previous transitions?	Charmaz & Belgrave (2012) Open-ended questions

V RESULTS

V.1 Phase 1 – Empathetic Input from Employee Interviews

Empathetic discussions serve as the first phase of the design thinking process. To assemble this information, the researcher accessed previous employees interviews, conducted by the design team. Team members interviewed eighteen employees, four months prior to the design thinking session with the objective of capturing employee sentiment around previous and current organizational transitions. The interviewees represented a broad functional area from technical, sales, marketing, sales support and regional product management teams. Additionally, this interviewed group was also fairly distributed with respect to work history. Thirty-three percent (33%) had 10 or fewer years of experience. Twenty two percent (22%) had between ten and twenty and the remaining forty-four percent (44%) had more than twenty years of experience. Finally, the group also contained non-managerial employees in the lower organizational levels in addition to a few Director-level managers.

Primarily, the empathetic interviews highlighted employees' concerns centered around the uncertainty of the upcoming organizational transition. Seventy-two percent (72%) of the interviewees mentioned uncertainty during their discussions. This was also apparent in the reference to and frequency of the word uncertainty, which was the most prominently coded term. One employee noted, "…and the details are unknown, there is concern about: job movement, job elimination, a feeling of uncertainty with the unknown." Another agreed, "In the beginning there is a lot of uncertainty". More importantly, employees felt that it was "still unknown how everything will shake out".

Interviewees also noted that uncertainty, led to rumors, which led to further speculation, resulting in even more uncertainty. The "length between announcement of a reorg and

execution can lead to rumors and more uncertainty for people", explained an interviewee. "Speculation due to uncertainty always causes unhappiness" and "fluctuating uncertainty because some rumors are true explains" some other sentiments. Finally, and fully aligned with organizational transition research – speculation and uncertainty caused stress and anger that lead to resistance. The connection between uncertainty, rumor and speculation is captured in the word tree in Appendix III. This illustrates how tightly the three areas bond together.

Following uncertainty, negative emotion was the next highest-coded theme. These emotions included anxiety, unhappiness, angst, apprehension and even "pain". One employee explained that this "can feel torturous". Similar to uncertainty, negative emotions were also tied to rumors.

> *The longer the rumors go on and the information doesn't come out, there is this up and down of fear and feeling good about the reorg. The fear comes from two major things – fear of not liking your new role or not liking your new supervisor.*

This sentiment was evident in "If you're worried about losing your job, the reorganization itself and its broader strategy take a major backseat to worries."

In addition to uncertainty and negative emotion, communication played the next critical topic area. "When information didn't come, people naturally started getting nervous again," provided one employee. This supports another colleague who indicated, "When no information comes from Management, then [you] need to do research from peers and others to find out as much info as possible." One employee also indicated:

> *There is a void in communications. Led to a loss in enthusiasm. The speed and the overall timing of announcing a reorg (in September) and still not knowing what the plan is in early February is unsettling.*

Finally, interviewees also provided positive points of view. One employee explained that, “it felt great to know that I was included. This is key - inclusion in the process.” Other employees expressed excitement: “Excitement comes from understanding what will happen, not when’’, “the final uptick in the mood is due to the credibility that is associated with the reorg”, and “once real information starts coming out and you see the impact to yourself, you start to feel optimistic”.

While negative statements were associated with previous and current organizational transitions, employees expressed that once they were included in the process, informed of the decisions and understand the reasons behind the transition, they were much more willing to participate in the change, which is fully aligned with organizational transition literature (Ashford, 1988; Oreg et al., 2011).

V.2 Phase 2 – Define and Ideate

Using these interviews as a basis for ‘user’ information, the design team proceeded with Phase 2 of the design thinking process. In an onsite collaboration room, the design team, with eleven members from diverse functions, proceeded through the design thinking methodology. Similar to the interviewees, the design team consisted of representation from sales, marketing, technical, product management and operations. The group consisted of two managers and 9 individual contributors with 9 years of experience, on average. Years of experience ranged from five to thirty years

To provide a more creative environment, the design thinking session was conducted in a unique collaboration room, located next to the organizations cafeteria. The room contained sofa seating, two discussion areas, collaboration boards, an electric fireplace, Ping-Pong and pool tables, and a bar/snack area. The researcher selected this space to clearly differentiate this

meeting from others that are normally conducted in the offer conference rooms. The space needed to be conducive to the creative process (IDEO.org, 2015).

To allow the team more collaborative independence, the researcher utilized a hypothetical scenario - a woman is extremely nervous and unwilling to take her car to the dealership for repair) as the basis to start each process step. Once the design team practiced the concept using the hypothetical scenario, smaller teams were formed to independently apply the tool to the organizational transition. Charts were created for each of the tools and color-coded Post-it Notes were used to help facilitate the conversation.

Teams were given specific tasks to perform and then allowed to move to other areas in the collaboration room. During these discussions, the researcher was able to observe team interactions unobtrusively. Audio devices were positioned in these smaller teams to capture detailed participant conversations. In the absence of the researcher, these discussions evolved organically within the smaller teams.

The entire session was recorded using two separate devices in an attempt to capture feedback from the smaller teams. Similar to the empathetic interviews, these recordings were also transcribed and uploaded to NVivio. Given that these recordings reflected the application of the design thinking tools, the researcher reviewed all of the recordings to identify insights into how the design team applied the different tools and any feedback, comments and concerns during the session.

Primarily, the researcher initiated the session by establishing a few ground rules or the lack of structured ground rules, which differed from normal meeting protocols:

> *There are no rules in this room. There's no conference table. The point of this session is that is flexible and fluid. There is no right, perfect answer and no wrong answer.*

With these instructions, the design team formed two smaller teams to refresh their memories related to the original interviews. The researcher asked the participants to pick up lunch and then meet in the smaller teams to discuss the original interviews. Copies of the interview information and the journey maps were provided. As the two teams separated, participants seemed to take a relaxed approach to selecting their food, gathering the interview information and forming the two teams. After five minutes of mingling, casual conversations began after all of the members were sitting together. Without direct facilitation by the researcher, the teams shared open dialogue and allowed members to actively participate in the discussion.

In the smaller teams, participants reflected, "I haven't heard much in the way of changes. People are having issues with that, it's more of the people we're working with". Another member noted that, "I think everybody was forward thinking as soon as those meetings happened." Self-reflecting, one member explained, "Personally, I was kind of let down that they didn't change anything with our group". Finally, one team noted that impatience did exist for some of the interviewees:

Sub-team #1 Interaction
Member 1: You think people are more anxious about the change or just anxious to get it started, to implement it? *Member 2: To get it started. Definitely to get it started.* *Member 3: I know the account managers I've talked to -* *Member 1: Yeah, they just want to get started.* *Member 3: … a couple of them, they're like let's just get going.*

Note: Since some of these conversations were recorded without the researcher present, voice identification is difficult. The sequential numbers only refer to this specific interaction. Member 1 may be different in following conversations.

During these smaller discussions, design team members also tended to discuss their own impressions of a recent meeting when the full organizational structure was announced:

> *But again, it was, well how are we going to be, interact with so many different groups? It was, okay, well where do we go to for certain things and how does that change… we constantly have to be, we have our set of people we work with.*

Another team member indicated, "It was really difficult to take it all in because there were so many others moving around you – so wait, where did that person go or where did that person go…"

Design team members then returned to the larger team to share their thoughts. Sitting around a collaboration board and after reviewing the insights from the empathetic interviews, the design team identified those interview responses, which were surprising to them. Team members took turns highlighting those concepts that they found interesting and then posted them on the collaboration board. The team initially took three minutes to start populating ideas quickly. After this introductory stage, as one team member posted an idea another member immediately got up to add his/her concept to the board.

Reflecting on the empathetic insights, one team member noted, "I was surprised at the steadiness of people. If they've experienced it before… they were like 'Okay, just tell me what's going to happen and then I'll go from there.'" Another member remarked,

> *I think one thing we always talked about was communication is key. So, throughout the process, people wanted to be informed about everything going on, and lack of communication really lead to the anxiety and uncertainty.*

One member also noted, "We talked about how some people were still uncertain, because they knew there were some changes, but they don't know where that puts them." Finally, a member reflected,

> *I think one of the things we always were talking about was communication is key. So, throughout the process people wanted to be informed about everything going on, and lack of communication really lead to the anxiety and uncertainty.*

Continuing with the review, the design team also identified other themes from their previous interviews: trust, curiosity, clarity, rumors, transparency, stress, informal meetings, excitement, impatience and fear.

To proceed into problem definition, the team needed to develop inferences for specific concepts and emotions. To assist the team with this new approach, the researcher presented a hypothetical situation of a woman who disliked taking her car to the car dealership for service. The design team then worked through this example, creating inferences related to her fear or dislike of visiting the dealership. To set the stage, the researcher indicated,

So let's just take a stab at something that has nothing to do with the reorg, just to practice. [A woman] hates to take her car into the shop for repairs, she avoids it. That's the feeling, and that's what's happening. What could some of the why's, the inferences be for that?

The researcher observed that the team required a few minutes in order to begin drawing inferences from the woman's emotions. After the start of the trial run, the researcher observed that design team members were not only actively posting ideas on the new collaboration board, but that they were starting to make direct eye contact with each other to provide feedback and to expand upon member postings.

Once the energy around this hypothetical idea reached the same level of engagement from the previous empathetic sharing session, the researcher asked the design team to think about three areas from their empathetic discussion for further refinement. After a few minute team discussion, members selected the three areas for further review: (1) the lack of communication during the organizational transition process, (2) the employees' feelings of stress and (3) not losing the engagement of those employees who are excited and impatiently awaiting the beginning of the new organization.

To ensure diversity in the sub-teams, the researcher separated the group into three different discussion groups. The three teams then separated to further refine the reasons beyond these observations. During this transition, the researcher observed that the teams more quickly

picked up their worksheets, formed their discussion groups and started to brainstorm concepts behind these three focus areas. Additionally, two teams decided to remain standing around two Ping-Pong and pool tables instead of sitting down. These smaller teams then started to draw inferences related to these areas. First, a team member striving to identify why an employee may be excited, hypothesized,

> *So they're pretty focused on keeping you learning so regardless they're always willing to learn either a new technology or a new testing system or whatever it might be. They're always used to that. They're always used to learning something new in the lab – with regards to the work itself. So, it goes to the plus of being able to be flexible with regard to the work… So if you're focused on continued learning constantly, the idea of changing is not scary.*

This team also identified other potential reasons for an excited employee: excited for a new role; the employee likes the new boss and the employee possibly doesn't like his/her current position. The team also agreed that, "Some people don't like to wait, they just want to start."

A second team worked on the reasons that employees could feel stress during the organizational transition. Inferences included a lack of control; lack of recognition; possibility of losing a customer with a long relationship; and lack of trust for the organization, management or colleagues. A member speculated that, "So you're a type-A and you have this great relationship with the customer and you know that relationship with the customer is going to change. If I had trust that the company was going to transition that relationship well, then maybe there won't be an issue of trust." Additionally, the team hypothesized that,

Desiring some clear, transparent communications is one of the things that popped up in the past. We haven't always experienced reorganizations that have gone well. Communications from the top down haven't gone well, or have been lacking in our experience so they all kind of lead to that. But we did try to spin that again from a positive side saying some folks, they develop or create a rapport by being transparent, by wearing their emotions on their sleeves.

The communications sub-team discussed several reasons for the emotions around communications: [Please note that number designations will change over the course of this summary. Two recording devices were used to capture comments. During transcription, each tape was submitted separately and the member numbers were established for that specific recording. In other words, Member 1 in the following discussion could be Member 5 in another. The researcher is clearly identified to ensure transparency.]

Sub-team #2 Interaction
Member 1: Inconsistency, just as a whole. Too many misses *Member 2: Consuming.* *Member 1: Yeah, time consuming. What was the thing that you said?* *Member 3: Inconsistency in the past. If there's no routine set to begin with… So if there wasn't a plan before on how to communicate effectively it's…it never worked from the beginning.* *Member 1: It's never going to be there.* *Member 2: Yeah that's true.*

Initially, when the Leap to Inference activity started, the teams found it challenging to start getting ideas flowing. One team tended to focus on negative propositions and couldn't change their trajectory until prompted by the facilitator.

Sub-team #3 Interaction
Member 1: Well, we're just getting our positive juices flowing now *Member 2: Now we're getting positive* *Member 3: [developing a positive inference] So, they've developed ties that are actually stronger than the coworker relationship* *Member 1: Yeah*

As referenced before, as user participants in this exercise, team members also tended to incorporate their own feelings and concerns into the discussions – and started to think outside of normal organizational transition protocol.

Sub-team #2 Interaction
Member 4: Instead of going top down, why don't you go bottom up? Put all the people in and then let them vote. In their group, you all get to vote… Here's all the managers who are inept and ok, and then you all get to vote on who are the managers instead of the managers picking people. *Member 5: That's definitely a different way of doing it.* *Member 4: Outside the lines* *Member 6 That's very outside the box. And I mean that was one of the things that we talked about whenever we were going through the uncertainty portion of it…* *Member 4: You mean you get to vote for the person…* *Member 5: Think of it this way, you have to get a hold of and you know ten ditch diggers to do it, right? And the ten ditch diggers are then all the same. Here's the people that have been digging, say its all in clay, these people can dig in clay… and you go to them and say, "Alright, we have identified you to do this job. Who do you want to lead you? Pick out of this group and you get to vote…*

Additionally, with the freedom to think creativity, this team started to discuss the possibility of incorporating a kick-ball mentality to the creation of an organization. "It [could be] like kickball when you're at school – I'll take you, I'll take you and I'll take you."

Following the smaller team discussions, the group reconvened to review the inferences that they associated with their emotions and concepts. The sub teams then presented their overall findings, some of which were highlighted above. As a specific example, the sub-team, focused on communications, presented:

> *Some stuff you can't tell us, so there's all that communication for that part. Some people just don't want to hear it so they choose not to and wait until it actually happens. Just the way it was delivered. Some people like the pop up meetings, or they want an email, or they want one-on-one, so different ways. They don't like one versus the other. And it's not a lack of communications but more of a delay.*

The researcher then returned to the hypothetical car repair situation, to allow the team to develop a point-of-view, which summarizes the empathetic insights and the inferred reasons behind the emotions and then proposes a game-changing experience for the user. Utilizing the three focus areas, the researcher then asked the design team to formulate a point of view and then propose a 'game-changer' that defines a different experience or emotion. The research explained, "Basically, you're putting in whatever that emotion was here, you're putting in your inferences as to why you think it's happening, and then I want you to think about a game-changer. You don't have to solve it, you're not coming up with a real solution… basically the game-changer in this one would be that the women is excited about getting her car repaired."

After explaining the next steps, the researcher reassigned team members to allow broader exposure to the three focus areas – communications, uncertainty and eagerness. That said, each team quickly grabbed their new worksheets, replenished drinks and snacks and grouped together to start their discussions. The teams then worked through their points-of-view to identify game-changers. For the three focus areas, the teams identified the following game-changers.

Table 8: Sub-team Game-Changers

Focus Area	Team	Game-changer
Communications	"That the listener understands what you are trying [to do] ... when you build your message it has to be for your audience. Everybody in the audience, it's not about the message. It's about delivering that message to all the ages, all the experiences, and try to hit everybody. So, you have to do research on your audience before we ever deliver this message."	Create and deliver real-time communications related to the transition.
Uncertainty	"OK, so the game change is that everybody will understand their role in the play. We're all here in the play, and everybody will understand their role in the play, because then if you understand your role in the play, you understand the play, why we're doing the play, what the purpose of the play is.	To help eliminate uncertainty, everyone within the organization will understand their individual roles in the new organization.
Eagerness	"... so it would be game changing to... so we're saying a couple things. One is keep it going, two is make it infectious across the organization, get everybody jazzed and eager, positive, while keeping the lights on, not messing with customers, not losing any business, not skipping, not... Is that it? Keep enthusiasm; spread enthusiasm while getting today's business done. That's pretty good."	Spread the enthusiasm across the entire organization so that everyone is eager to start the organizational transition. Inspire the whole organization to be excited for the transition.

Following the identification of game-changers, the researcher explained the next steps in the design thinking process. Now that the ideal deliverables were identified, the design team needed to brainstorm activities, events or novel approaches to reach these deliverables. To start the process, the researcher introduced the 'Yes, and' tool. This tool required members to start with a suggestion and simply take turns expanding upon the idea, demonstrating an acceptance

of the concept and the willingness to build upon the proposal. Using the car repair example, the design team started to brainstorm ideas to make car repair an exceptional experience. Applying the tool, the team started by listing some initial ideas. Customers could watch the repair -> customers could see the videos on YouTube -> customers could get texts about the service -> customers could use an app to identify appointment times that fit their schedule. As the team reached this concept, the researcher noticed that design team members started to move into a tighter circle, making direct eye contact with each other and not only looking at the facilitator. At this point, ideas were presented at a much faster speed. Customers could set up curbside service -> customers have a concierge that manages the entire process -> concierge knows all about the customers and their cars -> concierge can schedule different services during the repair (shopping, massage, manicure) -> services are on sight at the repair shop and the concierge schedules your onsite manicure -> customers can pick from a pool of concierges to find the right connection. The researcher summarized the discussion by,

> *We started out by saying that the woman feels uncomfortable and doesn't like the mechanic. And, we got all the way down to kind of an activity where it's an entertainment complex, where I can go, drop a car off, get a mani-pedi.... It'll all be included in there, my car is fixed, and yes, guess what, the experience was exceptional. [It's a] completely different business model. I don't know about you, I have not heard of car dealerships that have mani-pedi staff, to keep me happy while I'm waiting for my car to be done…*

Following the example, the researcher then transitioned to the 'roles' game-changer. The transition to apply the 'Yes, and' tool to the business application proved a little daunting. One member remarked, "Okay but I mean, what if I just want to write. Like I don't know if I understand this portion of it, so we're trying to find out how we're going to, the next step on how we're going to get people to understand their roles. So these are some of the activities?"

After clarifying the next steps, the design team selected clear roles and proactive communication game-changers for further review. Given the clear ties between these two items and the original empathetic feedback, consensus was easily reached once one of the team members recommended them.

To gather as many ideas as possible and to allow the team to continue to maintain their energy levels, the researcher conducted the next session with the entire team. As with the previous exercise, design team members initially struggled to identify solutions new to the organization's normal operations. Once a few different ideas were presented, the team continued to build speed in idea generation. During the roles brainstorming, team ideas evolved from facilitated workshops to an escape room game. To demonstrate this progression, design team members discussed: [Please note to better highlight the evolution of ideas, small parts of the conversation have been removed.]

Design Team Interaction – Ideation for Roles Game-changer
Researcher: So, we're thinking about some creative ways... *Member 4: Facilitated workshops by function, and then a cross functional [workshop]* *Researcher: Okay. I'm just trying get different things. Think. We are "Yes, anding".* *Member 3: Can we send out a survey to employees and ask their opinion to get them so that they buy into the process.* *Member 4: A bottom-up survey, is that what you're talking about?* *Member 9: I don't know, I don't know what a bottom-up survey is.* *[Members are posting their ideas on a collaboration board…]* *Member 3: Yeah, so it is a bottom up survey.* *Researcher What else? What cool things...* *Member 4: Orientation…a job function fair* *Member 4: Job functions discussed there.* *Member 3: A Mixer.* *Researcher: Ooh a mixer. Write it down. What else?* *Member 4: Job function tour. Through the building* *Member 8: Could do a job function art contest.* *Researcher: A what?* *Member 8: Job function art contest. What does your job function look like. Visual description...* *Member 6: Yes, and whoever draws the best piece wins*

Member 7: What's that on YouTube, it's like an instructional, when they [have]tutorial, a YouTube job function YouTube tutorial.
Member 6: Like when the little girl show my daughter how to play with the Barbie You know like the name game, where you go around, like your [inaudible] and each time, you remember where [inaudible] a job description, like oh you do this, you do this, does your team know what you do?
Facilitator: Cool, What else?
Member 7: What if you're able to speak to people who previously had your job? …people were able to tell you, "When I had your position this is what it entailed"...I mean you can incorporate it to HR online you know saying, "Oh well I previously had this position" …they can attach it to certain position, and it comes up that that's yours currently [crosstalk] and a person can be like, "Here were my challenges, here's what"...So it's like a review board of current job positions.
Member 6: [crosstalk] Hey I'm interested in applying for this position, and I wanna see what everybody has to say about it.
Member 7: Right, exactly. Challenges
Researcher: So I'm trying to think of what to call it.
Member 7: Internal Glassdoor.
Member 8: So what I'd stuck up there was a cross function matching game. So you know how we have all these functions that interact with in on each other. So I'm just thinking of a matching game where you got the guy behind the blue curtain, and so. Where you're talking to different people in different functions in basically define [the role].
Researcher: Right, this person manages the movement and materials across the region. She talks about [inaudible] [crosstalk] Okay sorry I'm prototyping. So I jumped like two steps.
Member 9: One of their job tests for fit was training where you have to go through and ask lots of questions you have to answer based on your role
Member 3: Whoever gets the highest score, gets a point. Cause it's tracked.
Member 7: What if you had something...well what if you had a strength [inaudible] kind of thing, but then it shows you all the roles that you might be best for.
Member 3: Your ancestry chart
Member 5: Yeah.
Member 3: You know like here's all your ancestors.
Researcher: It sounds...
Member 7: …So let's go game, say we had an event where we had a game, and you had to play all the roles within the organization. So, first you had to go and you had a simulation…
Member 3: And if you don't get out of that room it's kind of like that game
Member 6: Oh, escape room.

Reviewing this interaction, one can see that cross-talking started to increase during the development of the ideation process. Additionally, the required interaction by the researcher decreased as the process continued.

With the roles ideation experience as a practical application, the design team then discussed the communications game-changer. To help define the ideation topic, one team member explained, “Plan for multi communication, written e-mail, verbal, or pop-up example one on one.” While another member added, “Cause everybody [crosstalk] thinks different[ly] than everybody. You can't just be like, "everybody gets it via e-mail, everybody gets it verbal, everybody gets it..."

During the communications discussion, the team also deliberated over an aligned definition for ‘proactive’. This became an important part of the discussion since only a few members had participated in the game-changer discussion:

Proactive Communications – Definition Alignment
Member 1: Can we define proactive a little bit more, I think I'm struggling on that. Are we not proactive, proactive more than we are? [crosstalk] in November for the following June [inaudible] *Member 2: No proactive meaning, if people are uncertain that they trust the organization will communicate when they have significant amount of information on what's happening, if it goes back to that [inaudible] trust.* *Member 3: So right now, we haven't heard much. There hasn't been much communication into the organization since March 7th. And as a result some folks are just now waiting for something, and so that's what we're saying when we proactively communicate. Now what that is, if it’s just an encouraging something, whatever who knows what it is as a communicators just proactively communicate to the functions.* *Member 1: So for me, what I think I'm hearing instead of proactive, I'm hearing a cadence of communication.* *Member 4: Yeah, I think the word proactive means...* *Member 1: Right? Cadence, continuous communication.*

At this point in the discussion, the audio recording reflected very limited interaction with the researcher. As the team gained experience with and applying 'Yes, and', the researcher was not required to move the ideation process along. The design team then quickly populated the collaboration board with newsletters, blog, social media, omelet station discussions, listening events, weekly dashboards, GroupMe (group messaging app), a communications calendar, a countdown clock and Vlogs (video blogs). All of the items are includes in Table 9.

Demonstration of 'Yes, and' Tool
Member 8: A communications calendar. *Member 11: So there's that time, the thing, that Amazon uses they have the timeline next deadline, whatever it is, and it's literally a clock that counts down and is supposed to help motivate you. So what if there was an actual clock, to be like "this is", not to use the voice again.* *Member 6: This communication update.* *Member 11: What I meant was a clock that just counted down, I don't know it's kind of ominous.* *Member 6: Or just a countdown. Maybe a weekly countdown, so X number of days out, here's what's new. Countdown.* *Member 8: So communications clock?* *Member 6: Kind of like Bingo. Or even better, here's what we've done in the last 7 days. Here's how each of the groups have moved ahead. And here's...* *Member 7: Oh yeah a recap…It's actually a "Yes, and" clock…I like the clock.* *Researcher: You like the clock? So we've got this communications clock countdown thing going on. What else?* *Member 7: I like the clock, I like the face-to-face aspect of the weekly update. [and] the vlog...* *Member 8: In the middle.* *Member 4: The blog is not face-to-face* *Member 7: No, not face-to-face [crosstalk]* *Member 6: Are you saying "yes, and" like on the TV [monitors in the building] so when you walk back [to the labs] the blog will be a livestream playing or something?*

The previous passage reflects the increased interaction within the design team as it transitioned through ideation.

Following the exercise, the design team expressed surprise in reference to the number of ideas the members were able to generated. Table 9 reflects the list of potential ideas for all three game-changers.

Table 9: Ideation List

Role Responsibilities	Proactive Communications	Eagerness
Games to understand fit; Job function YouTube tutorials; Internal Glassdoor; Job description Jeopardy; Bottom up survey; Job function tour; Fair; Functions "Wars"; Facilitated workshops by function; Job description name game; Mixer; Cross-function Match Game; Job descriptions; Role are contest; Vote off island – survivor; one-on-ones; Job shadowing; Escape Room	Group messaging; Monthly BBQ/happy hour/Top Golf; Monday am newsletter; Weekly videos; Vlog; Custom dashboard; Podcast; Real-time medias; Written and verbal communications; Food incentive; One-on-one meetings; Weekly quizzes; Peer success stories; "Ask me anything"; listening events; Walking groups; Celebrations; Pop ups	Orientation session; Casual day; Whimsical day; Create small teams to work on reorg milestones; Moon shot goal of each group; Most optimistic people get "optimistic budget"; Open House; Brew tours; Team building activities; Functional games/competition

V.3 Phase 3 – Prototype and Test

In response to Phase 2 results, the design team reviewed and selected the countdown clock and the orientation program to further explore. The researcher the split the teams into two new groups for them to conduct further 'Yes, and' discussions around these two concepts and to start conceptualizing the final product. The researcher noted that the teams initially started to stand around and verbally discuss the concept.

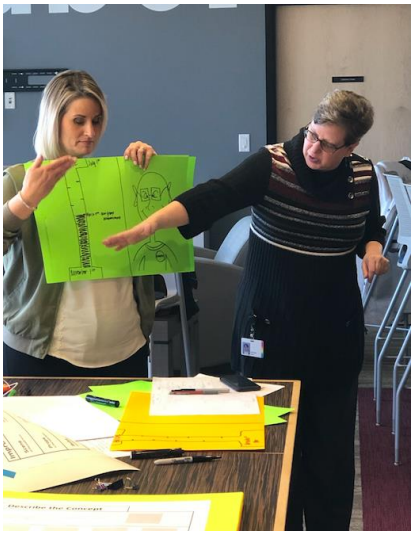
While the teams demonstrated solid 'Yes, and' behaviors, they needed coaxing to start physically creating their prototypes. After listening to a continued brainstorming for the orientation session, the researcher had to suggest,

Now I'm going to tell you the next step. Excuse me. Now I want you to actually make up an orientation [session]. Set up your table, figure out who's going to be behind the table, …you are going to invite those guys to your orientation. So now I want you to prototype what you guys were talking about. What they're doing is they're prototyping the clock, so they can show you something physical... The thing is you guys need more room, whatever you set up, whatever you want.

Similarly, the countdown clock sub-team started to verbally brainstorm their ideas. The group proceeded to verbally discuss the concept until the researcher reminded the group that they needed to present a physical prototype to the other team.

Sub-team #2 – Interaction
Member 2: [drawing sample screen] Yeah but he's missing a few limbs but all right. *Member 3: Like he doesn't have arms.* *Member 2: Ears are there.* *Member 5: I'll help you out…* *Member 1: Right? And, maybe it's like those things at Sam's Club that I you scan your badge, treats fall out of the bottom.* *Member 5: Or maybe it could be like an interactive thing that you could click on to see from the beginning how far you've made it. Like previews things like that.* *Member 2: Or guess the previous number and along your line, when you scan in, this TV starts tailored to you so it's more pertaining to what your job role or your specific group, so you scan your badge at that side door, and the TV now changing to appeal a little bit more of a message towards your team group.* *Member 5: That would be cool to if your badge could connect to where you go. 'Badge in at News Air TV' and gives you an update about your group. It's there for a minute or two. Just read it as you walk in.* *Member 2: And that could also be incorporated into our logins on our computer. So, when you login…* *Member 3: So, that it's a live feed.*

Once the teams understood that they needed to create the real product or experience, the energy level started to increase. Both teams collected supplies to draw, label and create items. The orientation team moved from behind the collaboration board and shifted chairs and set up invisible food stations. Once the sub-team realized that they needed to 'test' the concept with fellow members, they started to physically engage in creating the prototyped experience.



With completed prototypes, each team presented their concepts to the other group. The countdown clock sub-team reviewed their concept and provided sample screens for the new communications journey – countdown tracker. The countdown tracker would be located both on hallway monitors and on personal laptops. The tracker would provide a description of previous activities and updates while outlining future organizational transition activities and milestones. Finally, the televised countdown would provide a mechanism for members of the entire organization to provide updates using Vlogs. One member noted, “Then on this side will be different presentations. They're not going to be anything super, super fancy, if anybody just walks up to you and wants to film you for two minutes, because you started some new process or added something to your group. So, they'll [the stories] just continuously rotate.”

The orientation team cordoned off an area where team members could enter, be welcomed from the orientation planner, receive a sample punch card, enjoy snacks. Orientation visitors stopped at booths where colleagues explained their roles and then played a game of Jeopardy, with members from the new team cheering for them in color-coordinated shirts. As expected during prototyping, when the sub-teams presented their ideas, they identified areas for improvement and acknowledged feedback and question from the other members.

Following the trial runs, the design team agreed to continue to work on the concepts and to roll out and test the ideas with the rest of the organization. Design team members then self-selected which prototype they wanted to implement. Members expressed their commitment to move forward on the concepts and to assess if their colleagues like the ideas. Additionally, team members also discussed not waiting for the entire prototype to be completed (clock/tracker) due to IT challenges, but to determine what pieces of their prototypes could be easily implemented. Even after the session was over, team members remained, setting dates for future sub-team meetings, confirming team expectations and assigning future roles.

That said, a week following the design thinking session, the countdown clock/tracker team decided to implement the Vlog idea and to establish a shared location to store video updates and testimonials. The team approached the researcher (in her role as the lead of the

organization) to tape the first Vlog. The team also recruited design team, leadership team and other organizational members to film Vlogs to be incorporated into the shared location. Two entries have been shared as of this report. Initial feedback indicates that employees like the informal and quick communication vehicle. More than half of the employees have viewed the first blog providing the following feedback, “This is a great idea”, “Good update. Please keep them brief”, “I really like this idea”.

Additionally, the orientation sub-team was also designing an activity to be rolled out at an organizational transition workshop four weeks following the original design thinking session. The regional leadership team felt that the concept was very interesting and carved out a half-day of its one and a half-day workshop to allow the team to host the event. During the May workshop, the design team utilized the morning of the second day to introduce the Orientation Session. Fourteen tables were set-up, allowing teams to create visual displays of their products, roles, activities and deliverables. Design team members expressed initial excitement in response to the energy that was generated within the teams. Some teams decided to participate in similar t-shirts, construction gear and costumes. Other teams offered special treats like bacon flavored popcorn, a spin on a roulette wheel or various samples of products that utilize their products.

The design team participants led the event, stewarding their colleagues through timed rounds at each table and then conducting a game-show event to wrap up the morning and test the teams on what they’ve learned.

With a sixty-eight percent (68%) response rate, workshop participants provided very positive feedback for both the meeting and orientation session. When asked if they learned something new about the roles and responsibilities within the new organization, sixty-two of the seventy respondents either strongly-agreed or agreed. Ninety-one percent (91%) of the

respondents felt that the game was an effective way of learning about other groups, with thirty-five (35%) strongly agreeing.

More specifically, employees noted that they really enjoyed the orientation session and found it very informative. One respondent noted, "I liked the interaction at the table tops. I learned quite a bit that I did not know. The game to test the knowledge was fun and helped you learn as well." Another employee agreed, "Before the workshop I had a vague idea of what the other groups did outside of mine. Now, after the workshop my understanding has greatly improved". This feeling is also echoed in another's response, "Great participation and engagement from many people. In other words, people who typically do not speak up had good comments. More participation equals more enthusiasm".

Finally, when asked to provide feedback related to the reorganization, of the forty-three who responded to that question, fifty-three (53%) provided positive comments related to the transition, ongoing communication, leadership visibility and the change effort. Five still expressed some confusion and a need for additional information. One employee provided the following feedback,

> *I appreciate the effort to give everyone a chance to speak their mind about the transition and to encourage brainstorming early on. I think most of us understand that the LT is going into this in good faith and we are trying to do the same. I think this workshop helped me get much more excited about the transition than I was before.*

V.4 Design Thinking Follow-up – Participant Interviews

Following the design thinking session, the researcher scheduled individual interviews with each design team member to gain feedback from their experience, elicit information regarding the current organizational transition and to provide an opportunity to ask any questions related to the study or future activities.

V.4.1 *Participant Insights on the Design Thinking Session*

At the outset, participants were asked to comment on the design thinking session, highlight potential improvements and reactions and outline key results. When asked to comment about the session, participants had an overwhelmingly positive response. Appendix III includes a list of the most frequently used words in the design thinking session and during the follow-up interviews. Identifying their Dictionary of Affect in Language (DAL) Pleasantness ratings, the use and frequency of some of the words (yes, like, good, change and right) supports the positive and active receptivity from the design team. Since single words were used, the researcher checked the use of the word within the transcripts to ensure that the right application of the word was used. For example, 'kind' was one of the top ten words for the participant interviews. Checking the direct references revealed that kind was not always referencing being agreeable. Please note that using the DAL ratings only serves as an additional point of reference and is not meant to suggest that every use of these words was definitively positive.

Overall, the participants appreciated the informal conversations, creative freedom, interaction, constant movement, collaboration, fun atmosphere, energy and forward focus. B02, a newer addition to the sales and marketing organization, noted, "Everyone was really involved. Everyone was participating well. Everyone was coming up with some pretty cool ideas." Representing commercial operations, M06 also agreed, including "I enjoyed it. I would definitely be a part of it again, if needed." In addition, the attention to colleague emotions and feelings was viewed positively. "I really liked the attention on caring about how people thought and felt," remarked T04, an experienced product management professional. Table 10 summarizes the feedback from each design team member. [Please note that ten of the eleven members were interviewed. The last member was unavailable for the face-to-face interview.]

Table 9: Design Team Member Design Thinking Session Feedback

Design Team Member	Participant Responses to "What comments do you have related to Monday's pilot session?"
R01	*I thought it was good. I thought the structure made sense*
D05	*I thought it was really good*
M09	*I liked it, it was a lot of collaboration*
B07	*I liked seeing what the first step is for design thinking*
B02	*So I liked the pilot session because we were able to, so this was my first experience with design thinking. I liked how interactive it was*
A03	*I was saying how I thought it was really fun and creative to think outside of the box because we're so used to our everyday groove.*
M06	*So I really liked how we started, and it was really big.*
L10	*I really enjoyed it. I thought it was fun.*
S08	*So, I thought it was a great idea, first of all, to keep the energy up…*
T04	*I thought it was a great session. It was positive.*

Note: Given that the participant interviews were individually recorded, the numeric references are directly tied to specific participants and remain unchanged.

Participants also positively reflected on the tactical approach to the session. S08, a member of the global technical team, highlighted, "…and to constantly move around. There's no formalized presentation. That was a breath of fresh air." M09, a knowledgeable marketing professional, noted that, "I liked mixing up the teams every time we did something, you know, so we weren't always on the same team…I liked the space we did it in, right? Yeah, we need to use that space more…that was a great space."

Specifically, participants referenced the empathetic interviews as one of the biggest revelations from the experience. Per B02, "So I think that was awesome and I think the reorg journey to really survey the vast number of people to get how many different responses, different levels of optimism, pessimism, different stories. It was really cool to learn how people have been through this in their careers". M06 agreed, stating,

> *Cause once they talked through everything and said, "I didn't really feel great about it." But when you force them to reflect on a time in the past, and they see, "Well the past where you didn't feel great about, and then you ended up being fine." I think that helps…We also have people who were negative the whole way through, but it could have*

> *been from a past experience. Like we interviewed someone, he lost his job. So, Obviously for him, a reorg is not great. But going through this whole, chart your experience and having to talk through it, I think it's really beneficial. Plus you ask people to draw parallel to something outside of work, which is always way easier to do, I think…I think it worked really well…I was amazed at how much.*

Similar to B02 and M06, other design team members expressed amazement at how effective the empathetic interviews were. "Once we sat down with people it was really easy and really fun. I've only been in [company name] a year and a half, so I think hearing people's past experience with [company name] was really neat." A relatively new marketing professional, A03 hypothesized that,

> *Every person was different. Some would answer the question directly, and some would unload stuff they'd been holding onto for years. Maybe I wish someone would have asked something similar to this before, so I'm just going to tell you everything. There's still a lot of stuff to pull from it, so I thought it was really interesting.*

M09 provided a colorful description of the interviewing process, "I like doing the interviews, it was so funny because I had some people tell me, "Well, I'm not telling you anything, I mean, we can sit and talk about… you know." And then those were the people that like just vomited everything."

Participants also described the experience as very creative, referencing creativity over twenty-three times. The ability to remove potential barriers and to identify novel solutions was described as exciting. A03 explained,

> *I was kind of tired because we're not used to thinking that way. In a good way. I was tired but I said, "Oh, it's been a long time since I've done anything this creative." Because I studied bio-behavioral health in college. So, I said, "This reminds me a lot of my classes." It was really fun to get back into that.*

L10, a member of the office staff, aligned with other design team members concerning the ability to think 'outside of the box', a reference that was repeated five times during different interviews. "I thought it was a bit fun thinking outside of the box and coming up with different

solutions that I might not have thought of before." Others felt, "I feel there was certainly the invitation to be free and creative", "it's kind of complete creative freedom" and "to really have creative license and feel like you have input".

Following the open comments concerning the design thinking session, the researcher asked participants to provide constructive feedback related to the session. Sensing hesitation, the researcher added a follow up question that was more aligned with the organization's culture. Instead of identifying those components that the participants did not like, the researcher asked for help in improving the experience for future participants. When asked how the researcher could improve the design thinking session, participants provided several suggestions.

First, participants expressed the need for a more detailed overview at the beginning of the session. A senior member of the technical team, R01 offered, "[There was a] little bit of un-clarity and how candid, because of the mixed audience, how candid we could really be." This participant also recommended establishing ground rules up front to ensure that everyone immediately felt free to provide transparent input, regardless of their level in the organization. Expanding this proposal, a new member of the firm, B07 provided,

> *I think maybe what would have been good is if you gave us just a little bit, a brief intro, of what we were going to do in the transition thinking, so that could get us some thought provoking ideas… Because sometimes people are planners and thinkers beforehand, and then they want to bring in and then ask questions and so forth.*

L10 also requested more information be presented as background to design thinking - how it works and even examples of how it has been applied to organizational transitions in other companies.

Given the newness of the topics and tools, two participants detailed that additional facilitation was needed during the session. B02 indicated, "So having maybe a facilitator be present for each group would have kept the group on track. We could have just sped a couple

things up because…there were a couple times where I was in a group where we were questioning the overall scope of the topic that we were king of brainstorming." One participant recommended having additional facilitators, even professionals who run design Thinking sessions, available to support the teams.

Finally, design team members generally liked the car repair scenario that was used as an opening example for each tool. Two participants noted that, while that scenario was helpful, a second business example, similar to the organization's activities, would have provided a much needed and better transition to sub-team breakouts. "You can get lost a little bit in the weeds. So, I think if you had a work-related example to just start us off, that would have been helpful in focusing the groups at little bit."

In addition to the positive and constructive feedback, design team members conveyed a sense of accomplishment from the design thinking session. "Once you got started, it seemed to go pretty quickly. And, I think what came out of it was good. Those ideas can be implemented, which is…really important too." M06 also noted that the team should include more people to provide an opportunity to gain even more insights into the brainstorm list and to move more of their suggestions into actual prototypes.

V.4.2 *Participant Insights on the Organizational Transition*

Gaining a sense for their individual journeys, the researcher walked participants through their own emotion journey map. Almost half of the participants noted that they were relatively neutral after the initial transition announcement. R01 reflected, "I pretty much was relatively neutral. I'm not the kind of person that, I enjoy change. So, I wasn't overly excited." Two design team members did express a drop in their emotions after the initial transition announcement. "I was probably here [referencing neutral on the journey map]. I believed with

the reorg, just due to the uncertainty, I feel like I went down", noted T04. Some noted that they experienced a dip in emotions. "I think you automatically take a step back, and I did at least. It wasn't severe at all...But I think just the thought for me of, 'I hope I don't have to go through this again.' Being that I just came from that."

The design team expressed the same concerns and improvements for the organizational transition, as did the employees in the Phase 1 interviews. Primarily, seventy percent (70%) of the participants identified communications as a critical improvement area. S08 indicated, "I think the communication has been something that necessarily hasn't been optimized." TC04 provided a similar perceptive. "I think its came up in all of the interviews, in that there was much too much of a lapse of time from the initial communications to the first action step." B02 explained, "I think it's human nature for people to want to know all the details. They want to know them sooner rather than later because if you don't know, then rumors start swirling…Communication rumors were hand in hand." While design team members stressed the need to continuously improve our communication processes, a few participants did note improvement since the Phase 1 interviews took place. Participants cited pop-up discussions and meetings with the new groups as helpful to improve our understanding of the organizational transition. "Yeah, I know people might not be happy with it, but I think that since we're all talking about it more all the time, it's not out of the norm to talk about it," reflected M05.

Delayed communications were identified as a key improvement area for the current organizational transition. Even the delay between receiving the input from the empathetic interviews, using those interviews in the design thinking session and then communicating to the rest of the organization was extended over a few months' time. M09 noted, "I think we could

have used some of their feedback, like as far as communications and things, six months earlier. I feel like we got these people's feedback, but now it's kind of too late to really have an impact."

Participants also underscored the impact of uncertainty. B07 noted, "I'm sure there's people that would be completely unaffected by that [organizational transition], but for me that's hard because I see those people that are still trying to find out where they fit." Emotions dipped twice for M06 – once when the organizational transition was announced and then again when no additional news was available. "So I think the hard part was, it was announced in the fall and then nothing came out for a while." The collective impact of the uncertainty and resulting rumors was described by S08,

> *And just one comment on that…So what's interesting to me that what I saw was even people who weren't initially worried, who are just, oh, it'll be announced when it's announced. Head down, I'm just going to continue to work. Then the rumors started, and then it kind of, it brought everyone down to that level almost. And it was, well if everyone else is worried, I should be worried. And that just kind of perpetuated everything. So, even people that weren't affected got caught in it.*

As the participants reflected upon their initial feelings, the researcher then asked to think about their current feelings. While more than half of the participants felt positive about the organizational transition, three participants described either a recent decline in their excitement level or added stress. M09 explained that even though she was immediately relieved to see her new role in the organization, "now I feel under pressure to get stuff done under my [current role] prior to July 1st." Admittedly, two participants referenced some disappointment in the new organizational transition. At first excited about the possibility for change, these participants were disappointed that their teams remained unchanged. The thought that no change would be immediately forthcoming resulted in a drop in their excitement levels. S08 shared, "The downside is that nothing changed. So it [emotions] went down, but I'm still kind of here [positive]."

To better understand feelings around the current organizational transition, the researcher asked the participants to compare the current experience with another organizational transition. L10 recounted another organizational transition. "It felt like there was a longer period of waiting in between before we found anything out. And, so energy of the office just dropped so significantly. The morale was very low." A few noted organizational transitions that caught them completely unawares. Participants noted that this experience left them feeling as though they had neither control nor any influence in the transition. M09 offered that this organizational transition was almost analogous to an organizational transition in her church.

> *Our parish has two schools that were merging together. And, so to parallel these at the same time is fascinating to me, because its' almost exactly the same behaviors, but one essentially in a religious nonprofit setting, and one in the complete opposite. It's like crazy to me to see how people go in the same path, exact same path of some being angry, and then that sort of that dying, and then going," Oh, this could be a good thing."*

Finally, three participants reflected upon an organizational transition within the same business unit. The new structure was designed without including the full team. Once announced, the new structure was reviewed and put into immediate effect. Some believed that this was the best way to do an organizational transition and likened it to 'ripping the Band-Aid off'. "I think I lean more toward the 'rip the Band-Aid off' approach. And this is not that. I understand the reasons for that and it makes sense, but I think that is what may have complicated it a little bit." In contract, B07 noted, "…people were saying, "Rip the Band-Aid off," I don't know if he really wants that. Because we were going on a Christmas break in six days. Everybody already bought their presents, or they were going on vacations and that kind of stuff, and rip the Band-Aid off and we were going to be unemployed [referencing a previous organizational transition]."

While the design team members expressed confidence in their results, some still felt hesitation around key aspects of the organizational transition. S08's hesitation, which was echoed by others on the team, described uncertainty about moving forward,

> *I understand the need to solicit and really hear people, but how that implemented and what actions or how it's going to be used is a little bit shaky for me. And I think that's king of the crux of what I have seen in the past of what people wanted of, yes, you're conducting the survey but nothing's going to change. Right? And that's, for me, that connection is something that I'm missing as well.*

V.4.3 *Participant Insights on the Influence of the Design Thinking Process*

During the interviews three impacts were identified relating to the use of design thinking: the impact to the design team participants, the impact to the organization and the impact on the design thinking process. To begin, the design team members outlined the new ways in which they would either approach business or other personal interactions as a result of their experience. Table 11 presents this feedback from the participants:

Table 10: Design Team Member Personal Impact from the Design Thinking Session

Design Team Member	Participant Responses to "How did the design thinking approach affect your approach to organizational transition?"
R01	*In my mind it's perfectly in line with what I think should be done and… I think when I look at it. It is the way that I would do it. So, it's not that it affected or impacted my approach as much as is was in line with it*
D05	*Gave me a whole different perspective on it*
M09	*This diagram and doing the interviews actually was pretty eye opening to the different perspectives*
B07	*You have an opportunity to have a program that works, a system that works, and it's nice cause it can be applied to any king of work situation…So this had given me the opportunity to inadvertently learn about the company itself and what we do.*
B02	*I would say one word – eye-opening. And I think that the way that I say eye-opening is there are a lot of people who are surprisingly optimistic.*
A03	*I think it really made me think on how to do things differently…I think it made me think how to do things differently because you always think, Powerpoint. Or, How am I going to do this? Sit down, town hall maybe. There's always a pattern we like. It's like a rest button, right?*
M06	*I mean being involved with this was cool because you feel like you have a seat at the table, which everyone wants.*

L10	*And so the 'Yes, and' brainstorm was really cool for me. I just think that can be applied to not just professional but personal life as well and help a negative person become more positive.*
S08	*So I think it helped me think about how I want our group to interact with other groups more, more so in the new organization.*
T04	*I actually learned a few things from it [design thinking session]. I'm actually going to steal a few things from it…This 'Yes, and' thing, it's really funny because not until you sort of brought that up, that I realized how much we really don't truly brainstorm because we discount before we really go through ideas. So, I'm stealing that. I really like that…Kinda give me another thing in my toolbox…I'm struggling with that right not now on something. I might be pulling this chart out.*

One impact was evident throughout a few participant discussions. During the empathetic interviews, design team members' enthusiasm declined. M06 noted, "[Enthusiasm] probably dipped a little bit below [neutral]. Just not knowing anything, we didn't hear anything for a while. Listening to other people, probably dipped a little bit below."

Design team members also mentioned the design thinking session's impact on the rest of the organization. M09 explained,

> *I think they [the empathetic interviewees] appreciated that. And then most of the people that I talked to, I think I did three, came back and asked me for some feedback. So I just very generically took all of the interviews and gave them some feedback. And told them how we were going to use it, that we were going to plan activities.*

The empathetic interviews have also created extended relationships between the design team and the employees that were interviewed. Design team members noted additional conversations between the empathetic interviews and the team. A03 offered, "And then I talked to them recently and it's like, 'Yeah, but not I want to know what I'm going to do. Before, I was OK with it. What's going to happen, but now, I want to start working on it." Four members revealed that they were still in contact with the interviewees. The additional conversations were described as a connection to share information, reconnect, gauge current feelings and feel a part of the process. Design team members disclosed that, in their opinion, the Phase 1 interviews provided

an opportunity for their colleagues to feel heard. The continued follow-up affirmed that new connection within the organizational transition.

Lastly, in addition to the impact on the participant, the participants impacted the design thinking process. Normally, the intent of the empathetic interviews is to gain insights into the user's feelings to more clearly define the problem and then work to find a creative solution. With this session, the design team was composed of 'users' who were also going through the organizational transition. While their personal insights strengthen the information related to the employee transition experience, design team members sometimes struggled to reference their empathetic interview information and tended to focus on their own feelings and emotions. R01 explained,

> *I noticed it was a little difficult for folks to stay on…not all folks, some folks, to stay on "what have other people said?" and not to start to bleed into "I wonder if, I'm curious about," and start thinking and talking a little bit some of their own uncertainties questions and curiosities.*

At times, the researcher did observe, and also discovered in some of the audio recordings, that design team members may have placed more emphasis on their own feelings and concerns than the collected interview data from their colleagues. The line between the thoughts and opinions of those outside of the room blended with those concerns within the room.

VI DISCUSSION

VI.1 Empirical Insights

By analyzing the empathetic interviews, session interactions and design team interviews, the researcher was able to draw several insights related to the impact of design thinking on the organizational transition. These insights can be synthesized into three general interpretations. The first collection of insights deal with the very close association between uncertainty, speculation and stress. Employees who participated in both the empathetic interviews and the design thinking session clearly communicated that connection. As uncertainty increases, fear grows. Fear results in speculation or the desire to fill in missing data points. This speculation leads to added stress which results in increased fear, creating a viscous and destructive circle.

Next, the application of the design thinking methodology has as much positive impact in the first phase as it does when a product is successfully tested near the end of the process. Employee engagement is critical to resolving some business challenges. The overwhelmingly positive feedback from study participants, the influence on future behavior and the adoption of empathetic interviewing, demonstrates the profound impact of using these tools. Conducting emotion-centered, employee-to-employee interviews impacted both parties, creating increased feeling of inclusivity. The use of the journey map and soliciting colleague participation during the design thinking process is the most valued motivation to use the approach in organizational change efforts.

Finally, the use of design thinking, during an organizational transition, allowed the design team members to shift their focus from their own anxieties to the support of their colleagues and the shaping of the future. The design thinking session provided a forum for the team to solicit feedback, reflect upon their own feelings and then craft a solution to help alleviate their own and

their colleagues' fears. During the study, the researcher could see a marked increase in the design team's enthusiasm and desire to focus on the future state of the organization.

VI.1.1 *Empathetic Interview Results Support Organizational Transition Literature*

Primarily, the results of the empathetic interviews further support organizational research. As affirmed by Katsaros et al. (2014), during an organizational transition or change, employees fear the unknown. The responses from the empathetic interviews clearly identify a heighted sense of concern related to the uncertainty of the organization. Aligned with Phase 1 interview responses, higher emotion did connect to higher levels of uncertainty, as affirmed by Ashford (1988). Additionally, interviewees felt the negative effects of job insecurity, which created concerns and fears (Gaertner, 1989; Oreg, 2006; Oreg et al., 2011). Previous research has clearly demonstrated that an association exists between uncertainty, negative emotions and a resistance to change – also validated within the first phase of this study.

Taking the significance of joint speculation and rumor into consideration, one can conclude that the interviewees acted as defined in organizational theory and focused on their social surroundings to assess their own emotions (Schachter & Singer, 1962). The connection that employees expressed related to uncertainty and the need to speculate with rumors affirms the fact that employees will target their social interactions during times of stress. This aligns with Galbraith's assertion that uncertainty leads to speculation which also results in increased stress (Galbraith et al., 2002).

Combining this need for social connectivity and the impact of uncertainty, Phase 1 interviews were also united through the organization's culture. The tendency for joint speculation and the need to gain insights and share feelings within the organization aligns with Danisman's (2010) assertion that a clear association exists between an organization's culture and

the its ability to affect change. References to rumors, speculation and the sharing of this information supports the impact of and reliance to the organization culture (Danisman, 2010).

VI.1.2 *Insights from the Design Thinking Session*

The nature of the design thinking process is to provide an open forum for new concepts to give time for thoughts to evolve and to allow managers to be able to address complex challenges (Dorst, 2011). The feedback from the design team confirmed their belief that the design thinking session was a positive experience, which was validated by analyzing the pleasantness scores of the most frequently used words.

The application of design thinking within the intact team and the noticeable evolution of the collaborative creativity further affirms the positive impact of the empathetic interviews and the 'Yes, and' tools. The inherent struggle with the team to initially use the inference, point-of-view, and 'Yes, and' tools demonstrates the difference between the design team's cultural norms and proposed approaches. Participants indicated that they felt more facilitation and guidance was needed to ensure that the team was able to use the tools correctly and efficiently.

Additionally, the demonstrated energy level of the team changed dramatically during the session. Smaller teams chose to sit and reflect about the empathetic interviews during the onset of the session. As the session progressed, the design team was able to practice the new tools and increase their individual confidence. With that exposure and the welcomed freedom designed within the tools, sub-teams chose to remain standing during assigned tasks. There was a point where it was almost impossible to keep up with the requests and output of the sub-teams. The desire to keep moving at a faster and faster pace was a refreshing display of excitement and commitment to their colleagues and to the success of the organizational transition.

Increased energy and confidence was also evident in the speaking patterns of the design team. As the session began, the researcher provided more direction and guidance to assist team members. Cross-talking was also limited at the onset. As the session continued, more communications occurred between members, without the support of the researcher. Near the end of the session, when the teams were prototyping, a frenzy ensued – participants were grabbing paper and pens, shifting chairs, drawing concepts, soliciting input, generating new ideas, etc. The rather formal structure of the design team began to transition into a continuously creating and idea generating work group that filled the entire room with activity.

The fact that almost every participant indicated that they would apply the new skills in other areas of the organization, that they were actively planning the implementation/test of their prototypes, and that they insisted that the entire list of ideas be available for future review provides confirmation that the design team valued the application of the design thinking process. The excitement still continues, as the sub-teams are moving forward with the prototyping and testing of their original concepts and planning to evaluate some of the remaining ideas.

VI.1.3 *Insights from Participant Interviews*

As referenced before, the need to be heard and to feel included in an organizational transition process is critical to reduce levels of stress and resistance. Consistent feedback from the participant interviews confirmed that the design thinking session provided an opportunity for the participants to be included in the organizational transition and for their emotions, feeling and beliefs to be shared and heard.

While the feedback was considerably positive, design team members did provide candid feedback related to the design thinking session and the overall organizational transition. The researcher had concerns that participants would hesitate to provide honest feedback. Employing

open-ended questions and leveraging the empathetic interview form, the researcher was able to secure valuable insights to improve both the session, gauge if potential applications exist within the organization and assess the participant's view of the organizational transition.

Overall, feedback from the design team was similar in nature to the Phase 1 interviews. Taking into consideration the time between the two sets of interviews, both groups agreed that improved communications, continued transparency and reduced uncertainty where improvement targets for the transition. Consensus continued to be strong and supported those critical areas that are identified in organizational change literature.

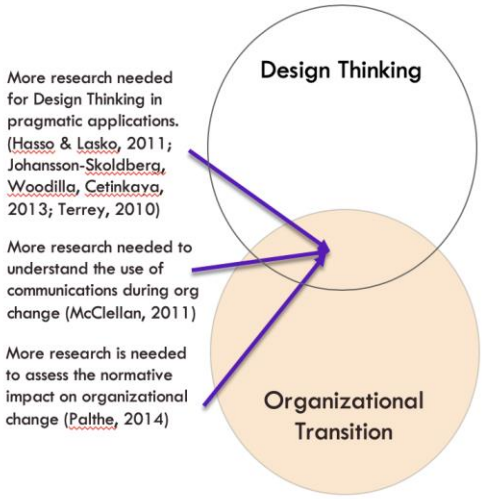
In addition to this increased level of freedom, the design team consistently referred to the profound personal impact in conducting empathetic conversations with colleagues. Team members expressed their desire to incorporate the journey map into future business and personal applications. This expanded insight demonstrates a developing sense of community and fellowship. Goleman et al. (2013) assert that the use of empathy in an organization not only multiplies the emotional intelligence of the organization. Its use also results in higher performing teams. Empathy has been described as a key driver in an organization's success (Goleman, Boyatzis, & A., 2013) and appears to now be embraced by the design team.

Using triangulation, audio recordings, session observations and insights from design team follow-up interviews validate that study participants was actively engaged in the process. The combined feedback from the participant interviews correlated with the increased energy and speed of participation as the session progressed demonstrates that the design team's acceptance of the process increased during the session and their excitement level was still evident during the follow-up interviews.

Finally, and most importantly, the participant interviews identified one change in behavior for the entire design team – the focus on the future state. Active participation did increase during the session. During the interviews, the design team focused on the incorporation of the new tools, the freedom during the design thinking session, and their commitment to implement their game changers. Not once did a design team member demonstrate unconstructive behaviors or criticism related to the structure of new organization. In contrast, some members noted that they looked forward to emotionally supporting their colleagues and implementing their game-changers for the remainder of the transition and applying these new tools in future activity when needed.

VI.2 Contributions and Implications

Contributions for this research study are threefold. First, this case study augments extant literature related to organizational transition models and processes. Next, the application of design thinking has been extended into a complex, organizational transition application, furthering the value of this approach beyond product design applications. On a practical note, this case study also provides a new framework for employee participation and extends the innovation toolbox for the researcher's own organization.



Once a firm identifies a need to undertake an organizational transition, the success of that transition because critically important to the future success of the organization. While previous literature identifies the theoretical framework in managing an organizational transition and the significance of employee engagement during the change, these roadmaps do not provide concrete tools to execute the plan. Utilizing design thinking provides a concrete mechanism to secure employee concerns and tease out their emotions, two important Design thinking also identifies a process to create innovative approaches to gain employee involvement during the organizational transition. Applying design thinking within any of the transition models would help to create an employee environment more receptive to change. When shared, these insights should help my own and other companies to realize this value and leverage these study findings to improve their own organizational transitions.

VI.2.1 *Contributions to the Area of Organizational Transition*

Organizational change literature provides guidance around the important components within an organizational transition and potential models to use for an effective change

implementation. That said, this case study provides an original approach to address the areas of employee inclusion, effective communication, feelings of uncertainty and effective discourse.

Primarily, study participants demonstrated positive receptivity for using the design thinking process to not only gather input from fellow colleagues but to allow employees to participate in the transition process. The use of empathetic interviews ensured that those engaged in the organizational transition could solicit, receive and analyze raw emotions and feedback from their peers. Understanding the real reasons for concern or resistance to an organizational change is important to the success of the transition (Self & Schraeder, 2008). Additionally, ensuring that employees feel that their input is listened to and applied during the organizational change is also an important factor. Employing an empathetic process, enables change leaders to informally and safely collect not only employee emotions but also the causes and motivations for those emotions. With this clarity, managers will be able to apply the appropriate tools and methods to ensure a successful organization transition.

Similarly, a need exists to broaden our understanding of the use of communications during organizational change (McClellan, 2011). McClellan challenges future research to extend the definition of change communications, particularly within the context of organizational change, beyond the historic informational process. The application of design thinking within this study provided a framework to conduct deeper discourse between change leaders, an intact employee team and the organization. The design thinking session and employee interviews provided a safe harbor to share employee emotions and to constructively discuss both the change and the emotions associated with the change, required discourse for any successful organizational transition (McClellan, 2011).

Additionally, the use of Design Thinking and empathetic interviews addresses the need to garner complete and accurate information from employees during a transition. Managers should not simply hypothesize about the reasons and rationale behind employee resistance or hesitation during organizational change (Ford et al., 2008). The use of design thinking to elicit this transparency provides a new mechanism to enrich the available feedback for change leaders.

Finally, the use of design thinking is not limited to one specific model or change. The value of this methodology is that the process can be applied across multiple, organizational change efforts and within diverse organizations and teams, utilizing any of the aforementioned transition and change models.

VI.2.2 *Contributions to the Area of Design Thinking*

A gap currently exists in design thinking literature for pragmatic applications of design thinking within business contexts. Academic literature should be expanded to include more ethnographic and pragmatic applications (Johansson-Skoldberg, Woodilla, & Cetinkaya, 2013). Hassi and Laakso (2011) agree that more empirical research is warranted to validate the effectiveness of the design thinking management discourse. Opportunity does exist to study the impact of design thinking on management processes and to assess if its use for improved, innovative and creative solutions. Design continues to receive a continued focus, but the application of design thinking to a broader context and to non-traditional applications is also warranted to extend the body of literature (Terrey, 2010). Buchanan (1992) concurs that utilizing design thinking in unusual challenges and subjects will help to expand the acceptance of this approach and increase the validation of this in additional context. He stresses that significant research and structure exists for design related to visual communication vehicles, physical products and services and processes. Supporting the evolution of design thinking within a

management environment will support additional work within complex environments and overall systems (Buchanan, 1992).

With a growing number of completed case studies, design thinking-focused research would benefit from further empirical analysis with respect to the application and impact of the design thinking approach (Badke-Schaub, Roozenburg, & Cardoso, 2010). Badke-Schaub et al. (2010) recommend that further research must provide for a better business strategic approach. Additionally, Våland and Goerg (2014) assert that additional studies are warranted to assess the impact of a design approach on organizational change, while also assessing the value of user participation. Research should be extended to collect additional empirical evidence related to these design applications (Våland & Goerg, 2014). Finally, Elsbach and Stigliani (2018) assert that organizations with a propensity for collaboration and experimentation may more readily adopt design thinking methodology. They encourage future research that tackles the use of design thinking in more traditional environments (Elsbach & Stigliani, 2018).

In support of these recommendations, the researcher applied the thorough standards for qualitative, case study research and assessed a new methodology to address the challenges with organizational transition within a traditional business environment. The application of design thinking in an organizational transition context extends the application of this approach to a complex, organizational challenge. Using the design thinking approach to garner employee feedback and 'design' the experience to better meet employee needs is a valuable application of the approach. Based on the survey results, employees appreciated the willingness to improve the overall experience, actively helped to identify areas for enhancement and valued the application of a design methodology to enrich the experience. All activities were well received by the employees in this case study. Their enthusiastic commitment demonstrated the value of user

participation in the design process, which would strongly suggest that future design thinking exercises should incorporate the end user within the process.

VI.2.3 *Practical Contributions*

The impetus of this research study was to assess the impact of design thinking on an organizational transition. The practical application was hopefully see a positive impact on the current transition using a new collaboration and ideation process. With the current challenges for our organization, leveraging these new tools should provide an opportunity to improve our organizational transition. With the positive feedback from the design team, their positive opinion of the process, the affirmative review of this inclusive approach and their willingness to provide candid feedback, I believe the study was a practical success for the organization.

The focused behaviors demonstrated during the design thinking session were new to this intact team. Palthe (2014) asserts that regulatory, normative and cognitive structures impact an organization's ability to successfully complete an organizational change. Palthe also calls for additional research to assess the impact of policies, work norms, beliefs and values on organization's ability to transform (Palthe, 2014). While the researcher did not conduct a rigorous analysis of the interplay between organizational structures and the transition, the researcher did hope to modify the standard practices for the organization. Since the organization's formally defined and highly structured approach has not been the most fitting environment for extremely creative change, applying new skills to enhance our organizational toolbox does align with Palthe's recommendation. Besides, the acceptance and planned use of these tools should allow for the improved management of organizational transitions. As offered by A03, "It's like a reset button."

Further, based upon their input, the design team has already implemented one of their prototypes and plans the release of yet another. These prototyped 'products' have improved our organizational design process and the team continues to incorporate more employees into their new ideation approach. Our need to dramatically improve our communications plans was highlighted by the design team and will now be addressed with a more intentional plan. Finally, design team members have expressed their intention to use the design thinking tools in future project and meetings. One design team member has indicated that they introduced and used 'Yes, and' in another business context. R01 summarized the use of design thinking for future application,

> *If I were to distill it down, I gather it's really engaging and involving the folks who are the result of, or the recipient of whatever change, and the process of talking through the change and using that input as ways to influence and design what you do.*

Next, organizations must ideate and innovate from the outside in and from the inside out (Lockwood, 2010). The use of design thinking within our scientifically and process-driven environment results in a feeling of freedom. The use of the ideation tools within design thinking support the development of a 'liberated' culture that may be prone to take risks and to better navigate ambiguous challenges (Elsbach & Stigliani, 2018). Given the insights and feedback from this design team, I assert that we should be able to obtain the same results as demonstrated by the San Francisco Opera (SFO), where a similar design team created a pop-up opera, website, logo, and business approach in a very short period of time (Hoyt & Sutton, 2016). Hoyt and Sutton (2106) provide that the same creativity that emanated from the freedom expressed by the SFO small team quickly permeated through the entire organization.

VI.3 Limitations and Future Research

First, a delay in gathering employee feedback and designing a product or experience for the organization's review created a disconnect between the feelings identified during the empathetic interviews and the current organizational feelings during the design thinking session. Conducting the session immediately following the empathetic interviews would have better correlated the emotional changes of the interviewees and the study participants with the design thinking tools. At this point, several activities were implemented between the Phase 1 interviews and the session. While a positive impact was identified as a result of the design thinking session, the degree of the impact is affected by the other improvements that were also implemented. Future research should limit the time between the empathetic interviews and the session. This will provide more transparency to the impact of the session and the prototyped concepts.

In additional to the delay, generalizability is limited for this study. This case study is a more detailed and thorough analysis of an intact team within a single organization. This study also incorporates another ten percent (10%) of the organization. Since the approach is a single case study, the results are not broadly generalizable across multiple companies or industries (Eisenhardt & Graebner, 2007). While a single-case study may not be generalizable to myriad populations, the results of this case may be generalizable to "theoretical propositions" (Yin, 2014). More specifically, the results of this case study may be extended to similar applications in an organizational transition effort, since the results are associated with employee inclusion, reducing feelings of uncertainty and allowing for an informal way to gather candid employee feedback – all of which are unrelated to an organization's industry, size or age.

Next, the organizational role of the intact, participant team was one of cultural awareness, inclusion, collaboration and creativity. Given the nature of the team's work, one could conclude

that the participants were already predisposed to these traits and would be more willing to volunteer and find interest in the tools. With that as a basis, the researcher recognizes that the willingness and speed of adopting the design thinking process and its tools may partially relate to this predisposition. Despite this potential limitation, team members strongly expressed the value of the tools and their potential use in other organization and project applications. The identified value and recommended applications should be recognized as a tangible, beneficial result from this study. Additionally, to improve generalizability and to expand upon one methodological learning, future research should utilize a design team with broader employee representation to more fully assess the willingness and speed of adoption across those with different cultural perspectives.

The conflicting role of the researcher as a managerial facilitator and evaluator of the actual design thinking experience could also be viewed as a limitation. Although the researcher attempted to remain impartial during the session, one specific instance occurred during ideation when the researcher started to actively participate in team ideation. After apologizing and distancing herself from the sub-team discussion, the researcher became aware of her own need to limit any potential influence during the session.

This tension also became evident at the end of the participant interviews when the researcher asked, “What comments do you have related to this study or the research process,” and “Is there anything else that you want to ask me?” Participants did not distinguish between the researcher role and the manager role of the organization. While participants posed questions related to the study, the final report and the overall process, several questions related to the researcher’s position as the head of the organization and her thoughts related to incorporating design thinking into the organization’s culture. This type of questioning led the researcher to

speculate if the participants were able to participate freely during the design thinking session and keep that clear distinction between manager, facilitator and researcher.

To address this limitation, the researcher permitted the teams to have deeper, unstructured and semi-private conversations during the session. This approach may have reduced the manager's impact on the design team's openness and willingness to participate. As indicated before, combining the visual, recorded and open dialogues provided an opportunity to determine that open dialogue continued in the absence of the researcher and the non-vebal cues and recorded conversations reflect moments of very candid conversation. Applying this methodological learning, additional research could replicate this study, leveraging a third-party facilitator to minimize any supervisory impact on the discussion or team involvement.

Next, in response to time challenges, participant interviews were also conducted by the researcher. Understanding that the participants may feel obligated to provide only positive feedback related to the session, the researcher expanded upon the interview process to specifically elicit areas for improvement in the design thinking process, the organizational design process and the study. While the questions followed an informal and open-ended structure (Charmaz & Belgrave, 2012), the researcher asked follow-up questions, specifically extracting areas of improvement or concern during the participant's experience.

In addition, two future research concepts were identified as a result of the highlighted empirical insights. Primarily, future research should explore the relationship between design thinking and increased employee participation and inclusion when applied to organizational transitions. Studies could utilize design thinking in any of the organizational transition models to assess the value of design thinking as an inclusive tool and as a mechanism to improve the transitional journey. Further, since employee inclusion is an essential component of any

organizational change, studying the full value of design thinking as an engagement tool in other change activities, would assess the participatory usefulness of this tactical resource to any change model.

The second research proposal would evaluate the value of design thinking in reducing employee anxiety by focusing on the emotions and fears of other employees. Since study participants increased their own feelings of inclusion and noted that they felt less anxiety about the change after the empathetic interviews and the design thinking sessions, researchers should further consider the relationship between the increased focus on other's concerns/fears and the potential reduction of one's one anxiety. This analysis may provide additional support for the use of empathetic interviews during organizational change activities.

Finally, leveraging the results of the design team to enhance the current organizational transition and introducing key components of the design thinking process to expand our own ideation toolbox will ensure our future organizational success. Given the application of a rigorous scientific process, the use of existing organizational information, the application of a novel operating methodology and the apparent impact to the organization and the design team, this qualitative case study may have evolved into an action research project (Coghian, 2001). The researcher, study participants and the originally interviewed employees have been forever changed. As T04 explained:

> *I do like [design thinking]. There are a lot of learning tools from it…even just the thought process - when you can't change the outcome, you can change the experience.*

APPENDICES

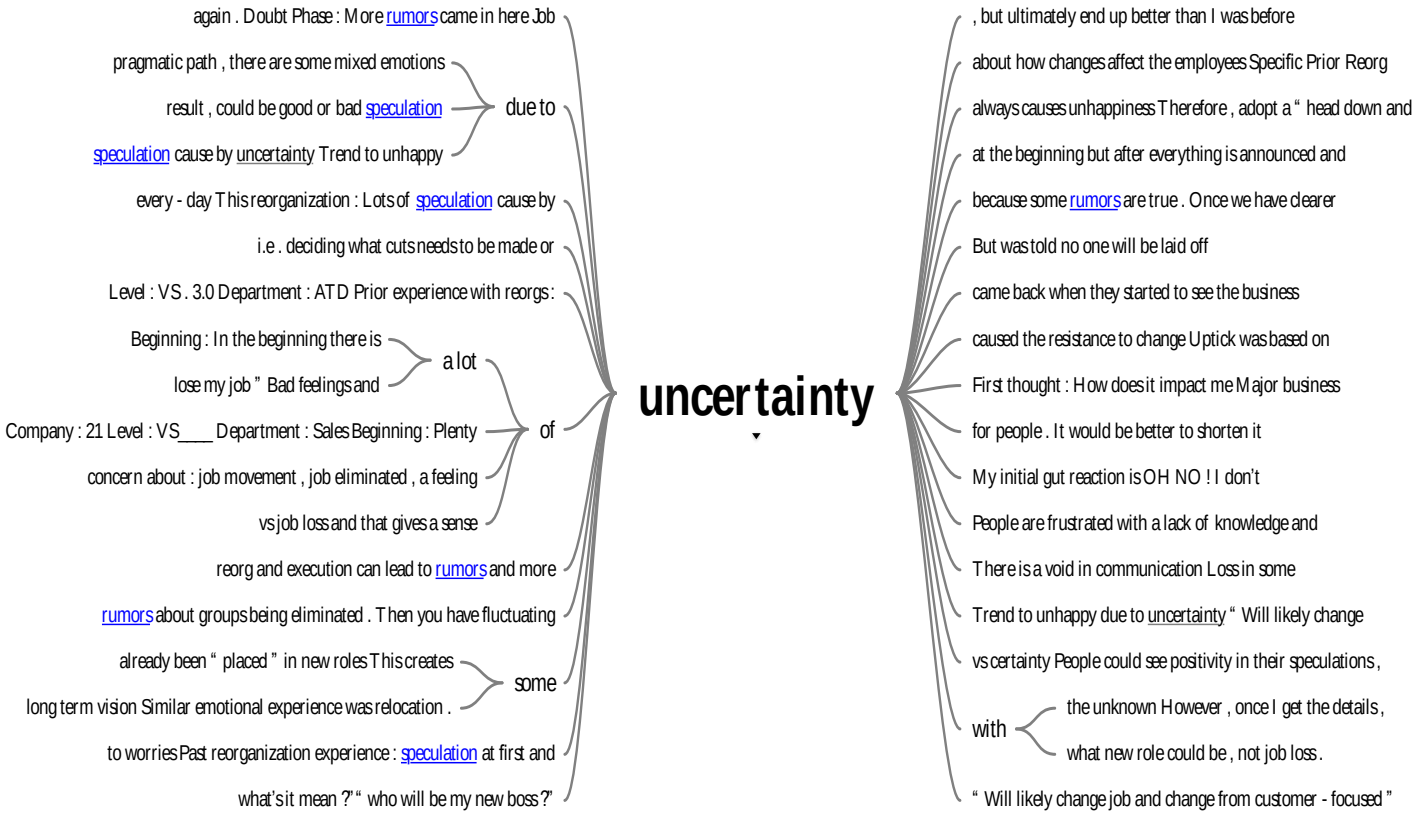
Appendix I – Glossary of Definitions and Concepts

Term	Definition	Relevant Reference
Abduction	A process of discovery that incorporates scientific invention because of systematic observations and creative inference.	(Van de Ven, 2007)
Wickedly complex Problems	These problems are complex challenges that incorporate multiple stakeholders with varying focus areas, indeterminate cause and impact, unfounded starting point and both good and bad solutions.	(Rittel & Webber, 1973)
Design Thinking	An empathetic, human-centered problem solving process that requires iterative prototyping and testing to meet the user's need	(Tim Brown, 2008a)
Open Coding	The objective of open coding is the identification of core categories from a developed list of textural classifications.	(Glaser, 1992)
Organizational Citizenship Behaviors	Voluntary employee behaviors that have a positive impact on the team and improve organizational performance.	(Lee & Allen, 2002)
Participant-Observations	The researcher observes participant actions and behaviors while also serving an active role within the study.	(Yin, 2014)
Pleasantness	The degree to which a word or series of words are considered pleasant.	(Whissell, 2009)
Reflexivity	The subtle influence by an interviewer on answers provided by an interviewee during conversational dialogue.	(Yin, 2014)
Substantive Coding	This coding process requires the researcher to work directly with the data, splintering and then analyzing it using open coding to identify emerging categories and associated topics.	(Holton, 2007)
Template for Research Design	A structured outline that ensures a link between academic rigor and practical, real world problems. This template incorporates problem setting, area of concern, conceptual framing, method, and research question and study contributions.	(Mathiassen, 2017)
User Participation or Participatory Design	Users are incorporated into the design process to help overcome complex design challenges and to create a "use-before-use" approach.	(Ehn, 2008; Redström, 2008)

Appendix II – Template for Research Design

Journal	Design Management Review; Journal of Leadership and Organizational Studies
Title	Improving the employee transition experience: A practical business application for Design Thinking
Problem Statement (P)	In a dynamic environment, FirmX has decided to revamp its business structure to support additional market and customer focus. Given the importance of the transition and the challenges that were identified in previous transitions, innovative approaches to this organizational transition and the establishment of a new, energized team are essential for the future success of the organization. As the lead of this new business group, existing practices were not sufficient to manage this larger change. Finding innovative ways to manage the organizational transition and the change efforts provides a practical framework for this ongoing challenge.
Area of Concern (A)	Employee experience during organizational transitions
Framework (Fi)	Design thinking use in practical business applications
Method (M)	Qualitative 2-phase research study utilizing Design Thinking Phase 1: Analyze existing exploratory interviews with 18 employees to frame the detailed, employee issues with organizational transition efforts. Phase 2: Define and ideate new concepts with a cultural team to create novel approaches to improve the transition to the new organizational structure Phase 3:Prototype and test the effectiveness of the new ideas through semi-structured interviews with the design team.
Research Question (RQ)	How can design thinking enable a situated approach to organizational transition? Secondly, how will can design thinking support employee participation during organizational transitions?
Contributions (C)	*Problem:* Given the importance of effectively managing organizational change, a business imperative exists to manage current challenges with the effective implementation of organizational transition efforts. *Area:* Utilize design thinking to apply abducting reasoning to a practical business problem and expand the existing body of design thinking literature with a practical business application *Practical:* While the organization has several operational tools and processes, a tool focused on enhancing employee engagement. The researcher's organization needs to expand its toolbox to solve complex organizational problems, while capturing and utilizing employee feedback and insights.

Appendix III – Phase 1 – Empathetic Interviews – Uncertainty Word Tree and DAL Pleasantness Scores



Dictionary of Pleasantness and Activation Rankings for the Most Frequently Used Words (Top Ten – Listed highest to lowest in frequency)

Participant Follow-up Interviews			Design Thinking Session		
Word	Pleasantness	Activation	Word	Pleasantness	Activation
Thinking	1.91	2.11	Like	2.71	2.00
Like	2.71	2.00	Think	2.13	2.50
People	2.29	2.43	People	2.23	2.43
Things	1.77	1.85	Knows	2.00	1.45
Knows	2.00	1.45	Right	2.43	2.00
Right	2.43	2.00	Going	2.00	2.60
Good	2.75	1.92	Things	1.57	2.23
Change	2.22	2.00	Communications	1.77	1.85
Timing	1.75	1.83	Game	2.00	2.13
Reorganization			Yes	2.60	1.89

The Pleasantness rating spans from 1 – Unpleasant to 3 – Pleasant and 1 – Inactive to 3 - Active

Appendix IV – CodeBooks

Name	Files	References
Name	Files	References
Clarity	6	8
Communications	0	0
Communications - Inclusive	8	12
Communications - Lack of	11	12
Communications - Timing	9	11
Emotions	0	0
Emotions - Negative	12	23
Emotions - Neutral	8	9
Emotions - Positive	7	14
Job Loss	6	6
Productivity	2	3
Reorgs	0	0
Current Reorg	4	5
Previous Reorg	8	10
Roles	2	2
Rumors	6	9
Saying Goodbye	2	2
Similar Emotions	3	3

Dissertation - Phase 4 - Participant Interviews

Nodes

Name	Files	References
Change Acceptance	2	3
Communication - Redesign	1	1
ComR - negative	7	7
ComR - neutral	1	1
ComR - positive	2	4
Current redesign (CR)	0	0
CR - feelings journey	6	12
CR - initial reaction	8	12
CR - negative feelings	4	12
CR - positive feelings	5	9
CR participation	3	5
CR process	5	10
Redesign comparison	3	6
Design Thinking	0	0
DT - negative feedback	1	1
DT - neutral comments	2	3
DT - positive feedback	10	50
DT - process understanding	2	2
DT results	6	7
DT session improvements	8	15
Future recommendations	8	21
Impacts	0	0
DT impact on participant	10	32
DT on the organization	2	2
User impact on DT	1	1
Leadership feedback	1	1
Previous redesign (PR)	0	0
PR - negative feedback	3	8
PR - neutral feedback	3	3
PR - positive feedback	1	1
Study and research process	1	1
Limitations	2	3
Manager vs Researcher	6	7
Study - negative feedback	0	0
Study - positive feedback	5	6

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EDUCATION

Executive Doctorate of Business:	Ross School of Business, Georgia State University, Atlanta, Georgia, 2019
Master of Arts:	Katz School of Business, University of Pittsburgh, Marketing (major) and International Business (minor), 1998
Bachelor of Science:	University of Pittsburgh, Business, Communications (major) and Human Resources (minor), 1990
Certificates:	Executive Doctorate Teaching Certificate, Master Teacher Program, Georgia State University
	Customer Focused Innovation Program (CFI-13), Stanford Graduate School of Business Stanford University
	Advanced HR Executive Program, Ross School of Business, University of Michigan, Ann Arbor, Michigan
	Advanced HR Certificate in HR Management, School of Industrial and Labor Relations, Cornell University, eCornell
	Human Resource Practices, School of Industrial and Labor Relations, Cornell University, eCornell
	Leading Global Teams, Katz School of Business, University of Pittsburgh
	Summit for Sales Executives, Kellogg School of Management, Northwestern University
	Business & the Public Policy Process, The Washington Campus, Washington, DC
	Value and Pricing Strategy, SMEAL College of Business, Pennsylvania State University
	Measuring and Managing Customer Satisfaction and Loyalty, American Society for Quality (ASQ)

Accredited Lead Auditor Course, Excel Partnership, Inc.

RESEARCH INTEREST

Leadership
Design Thinking
Cross-cultural interrelationships
Organizational Change

PROFESSIONAL EXPERIENCE

2/2018 – Present	Senior Vice President, Coatings, Adhesives and Specialties Commercial Operations, Covestro LLC
7/2014 – 1/2018	Vice President, Regional Product Management NAFTA, Polycarbonates, Covestro LLC, Pittsburgh, Pennsylvania
5/2017 – 10/2017	Vice President, Regional Product Management APAC, Polycarbonates, Covestro LLC, Shanghai, China
1/2010 – 6/2014	Vice President, HR/direct – HR Shared Services Center, Bayer Corporation, Pittsburgh, PA
7/2006 - 12/2009	Vice President, Global Key Accounts and Strategic Marketing, Coatings, Bayer MaterialScience LLC, Pittsburgh, PA
2003 - 2006	Business Unit Director, Inorganic Basic Chemicals, Bayer Polymers, Pittsburgh, PA
2001 - 2003	Senior Manager, Strategic Planning, Polyurethanes, Bayer Polymers
1999 - 2001	Business Group Manager, Chlor-Alkali/Acids, Bayer Polymers, Pittsburgh PA and Houston, TX
1996 – 1999	Manager, Continuous Improvement, Corporate Quality, Bayer MaterialScience, Pittsburgh, PA
1995-1996	BU Business Champion, Account Specialist, Bayer Polymers, Pittsburgh, PA
1990 - 1995	Technical Marketing Rep, Polyurethanes, Mobay Chemicals, Pittsburgh, Pennsylvania

1984 – 1990 Assistant to the Executive Director, Pittsburgh-Allegheny County Private Industry Council, Pittsburgh, Pennsylvania

RESEARCH AND EVALUATION REPORTS

Dougherty, Sean; Ellen, Pamela; Stowell, John; & **Williams Richards, Aleta**. (2017) Perceptions of Fully Autonomous Freight Trucks. SSRN Electronic Journal https://ssrn.com/abstract=3027143

Dougherty, S., Stowell, J., **Williams Richards, A.**, & Ellen, P. (2018). Will Automated Trucks Trigger the Blame Game and Socially Amplify Risks?. SSRN Electronic Journal https://ssrn.com/abstract=3241569

TEACHING EXPERIENCES

2018 Marketing Contest Judge, Georgia Gwinnett College, Lawrenceville, Georgia
2002-2007 Instructor: Diversity Journey Program, Miles/Bayer Corporation

PUBLICATIONS

Richards, A.R (1989). Funding Resources Guide**,** Pittsburgh-Allegheny County Private Industry Council.

CONFERENCE PRESENTATIONS

Dougherty, S., Stowell, J., **Williams Richards, A.**, & Ellen, P. (2018, August). Will Automated Trucks Trigger the Blame Game and Socially Amplify Risks?. In *2018 Engaged Management Scholarship Conference: Philadelphia, PA.*

Dougherty, Sean; Ellen, Stowell, John; **Williams Richards, Aleta**. (2017) Perceptions of Fully Autonomous Freight Trucks. Seventh International Engaged Management Scholarship Conference.

INVITED PRESENTATIONS & PANELS

Speaker, Lean Six Sigma, (2017) Covestro APAC Commercial Operations Meeting, Xi'an, China

Panelist, Redefining Leadership Conference (March 2017), Katz Alumnae Council, University of Pittsburgh

Panelist, Pittsburgh Women in Leadership Symposium (June 2016), National Diversity Council

Panelist, Top Strategies for Ascending to a VP Role (October 2015), PITT Black MBA Network, University of Pittsburgh

Speaker, Employment Tips, Salem-Teikyo University (1991)

Speaker, Employment and Life Success, Pittsburgh in Partnership with Parents (1988-1990)

PROFESSIONAL & CIVIC SERVICE

2019-Present	Board Member, Pittsburgh Promise, Pittsburgh, PA
2019-Present	Member, Aliphatic Diisocyanate Panel – Business Manager Group, American Chemistry Council
2019-Present	VP Operations, PITT Black Association Network Board, University of Pittsburgh
2018-Present	Board Member, Covestro Political Action Committee
2018-Present	Executive Sponsor, CHAMPS Military Employee Network, Covestro LLC.
2017-2018	Board Member, PITT Black Association Network, University of Pittsburgh, Katz School of Business
2008-Present	Executive Sponsor, African American Employee Network, Bayer/Covestro LLC
2010-2012	Member, Bayer Diversity Advisory Council
2009-2011	Trustee, Propel Schools and Co-Chair, Fundraising Committee (2009-2011)
2006-2010	Board Member, Hill House Association, Fundraising Committee (2006-2010) and Chair, Personnel Committee (2010-2014)
1990-1991	Mentor, Reizenstein Middle School
1989-1991	Communications Graphics Designer, Way Truth and Life Ministries
1986-1990	Board Member, Partners in Self-Sufficiency

AWARDS

2019	Top Professional, Marquis Who's Who
2019	Albert Nelson Marquis Lifetime Achievement Award, Marquis Who's Who
2019	100 Pennsylvania Women of Influence, Talk Minority Action Group
2018	Citation, House of Representatives, Commonwealth of Pennsylvania
2018	New Pittsburgh Courier, Women of Excellence Award
2017	100 Influential Pennsylvanians, Talk Magazine
2017	Covestro Pinnacle Award – Venture Manager Project
2016	Pittsburgh Most Powerful and Influential Women Award, National Diversity Council
2016	Minority Achievers Award, Talk Minority Action Group
2016	Covestro Pinnacle Award – Covestro, LLC
2015	Bayer Pinnacle Award – Bayer MaterialScience, LLC
1992	Marquis Who's Who of American Women 1992-1993
1990	Mayor's Recognition Award, City of Pittsburgh

AFFILIATIONS

2018 – Present	American Academy of Management, Member
2017 – Present	Informing Science Institute, Member