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The impact of trust in management and quality of change communication on readiness for change

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THE IMPACT OF TRUST IN MANAGEMENT AND QUALITY OF CHANGE
COMMUNICATION ON READINESS FOR CHANGE

BY

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THESIS

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Faculty of Business Administration

Lakehead University

Thunder Bay, Ontario

Declaration

I certify that I am the author of this thesis and that any assistance I received in its preparation is fully acknowledged and disclosed in the thesis report. I have also cited any source from which I used data, ideas, or words, either quoted or directly paraphrased. I also certify that this report was prepared by me specifically for this course.

No portion of the work referred to in this study has been submitted in support of an application for another degree or qualification to this or any other university or institution of learning

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Date

Abstract

Organizational change is something that many organizations are facing and implementing change is an important skill for leaders to have. Despite this fact, the actual success rate for implementing organizational change is very low. An employee's readiness for change is thought to be a critical precursor to successful change implementation, but there is sparse and conflicting research on how it can be facilitated.

This thesis aims to narrow the gap in knowledge by investigating the roles of trust and communication on readiness for change. Additionally, the role of readiness for change on change commitment was investigated.

A field study with conducted within two sites of an organization currently implementing a Microsoft SharePoint system. At one of the sites, where the implementation has been successful, a mixed methods approach was taken, primarily gathering quantitative data which was supplemented by qualitative data. At the other site, where the implementation was still in progress, a purely quantitative approach was taken with the collection of independent and dependent variables at different times.

The results highlighted the importance of communication in creating readiness for change, especially in a high trust relationship. There is evidence to suggest that the relationship between trust and readiness for change is complicated and varies throughout the process, which may explain previously conflicting results.

Future research directions, as well as implications for practitioners are presented.

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1 - Introduction

Armenakis and Harris (2002) identify that implementing organizational change is one of the most important skills a leader can possess, but that very little is understood about it.

Readiness for change comprises an individual's beliefs, attitudes and intentions towards a change (Armenakis, Harris & Feild, 2000). Failure to effectively create readiness for change has been identified by Schein (1999) as a key factor in explaining why so many organizations fail to successfully implement organizational change. Trust and communication have previously been thought to be important factors in creating readiness for change (Armenakis & Bedeian, 1999), but there is still no clear consensus on how it can be facilitated.

In a meta-analysis of 43,426 different organizational change efforts, the median success rate is merely 33% (Smith, 2002), with the actual success rate varying based on the type of change. These results are summarized in Table 1.

This success rate is very close to estimates by other authors' in the field (Beer & Nohria, 2000; Clegg & Walsh, 2004), clearly showing a need for improvement. Presently, considerable literature has accumulated surrounding organizational change, but despite the vast amounts of literature available, there is still a large gap in knowledge surrounding organizational change (Armenakis et al., 2000; Bernerth, 2004; Bouckenoghe, 2008).

This thesis sought to narrow the gap in knowledge by investigating the roles of trust and communication on an employee's readiness for change. Additionally, the role of readiness for change on change commitment was investigated. This thesis provides a unique contribution in several ways. A field study was conducted within two different sites of the same company, implementing the same change, but at different stages of the process. At one of the sites a mixed

methods approach was taken, gathering primarily quantitative data which was supplemented by some qualitative data. At the other site, a purely quantitative approach was taken and a longitudinal study was attempted, but with there was no significant difference between Time 1 and Time 2. Instead, using the same data a cross-sectional approach was taking, using this data to create separation between the collection of independent and dependent variables.

Table 1: Success Rates and Criteria (Smith, 2002)

Type of Change	Number of Studies	Sum of Sample Sizes	Median Success Rate	Success Criteria
Strategic Deployment	3	562	58%	Not stated
Restructuring and Downsizing	9	4,830	46%	Operational and Financial Performance
Technology Change	5	1,406	40%	Project management, cost & time vs. plan, downtime and operating expense
Mixed Collection of Change Efforts	1	23	39%	Not stated
TQM-driven Change	5	863	37%	Satisfaction with technique and occasionally operational measures
Mergers and Acquisitions	9	395	33%	Enterprise financial indicators
Re-engineering and Process Design	7	3,442	30%	Satisfaction Ratings
Software Development and Installation	6	31,480	26%	Schedule, budget, features and functionalities
Business Expansion	1	200	20%	Not Stated
Cultural Change	3	225	19%	Subjective data
All	49	43,426	33%	

This thesis reviews past and current literature on organizational change and some related constructs of interest. These were placed within the Armenakis and Bedeian (1999) organizational change framework, gaps in literature are identified and a conceptual model was developed.

2 - Literature Review

2.1 - Organizational Change

Organizational change is defined as the adoption of a new behaviour or idea, occurring over a period of time (Daft, 1982). Although currently a hot topic in behavioural research, organizational change did not receive any significant scholarly study until Coch and French (1948). This consisted of a study at a manufacturing plant which examined why people are resistant to change and how it can be overcome. This study found that resistance to change was caused by individual frustration and group forces.

Attitudes towards change are an individual's positive or negative feelings, thoughts and behaviours towards a specific change (Arnold, Cooper & Robertson, 1995). The attitudes include resistance to change, readiness for change and commitment to change (Bouckennooghe, 2008). Resistance to change is defined as "an evaluative response to maintain the status quo" (Ellen, Bearden & Sharma, 1991, p. 298). Much of the previous research done on organizational change has been on resistance to change while neglecting readiness for change (Bouckennooghe, 2008). A widely cited definition of readiness for change is as follows:

Readiness is reflected in organizational members' beliefs, attitudes and intentions regarding the extent to which changes are needed and the organization's capacity to successfully make those changes (Armenakis, Harris & Mossholder, 1993, p. 681).

Although there are change models which exist that are specific to information technology (Davis, Bagozzi & Warshaw, 1989; Cooper & Zmud, 1990), generic models seem to mirror information technology specific change theories (Prochaska & DiClemente, 1983; Kotter & Cohen, 2002; Armenakis et al., 2000).

2.2 - Change Framework

Armenakis and Bedeian (1999) have assembled a multi-faceted framework for assessing the topic of change by creating four distinct categorizations: criterion issues, content issues, context issues and process issues. This framework, which was used to frame components of this thesis, is used by other studies for categorizing change related theory and research as well (Self, Armenakis & Schraeder, 2007; Bouckennooghe, 2008), but has also been expanded to include individual differences (Holt, Armenakis, Feild & Harris, 2007).

2.2.1 - Criterion Issues.

Criterion variables or outcomes, explore the success and failure criteria behind an organizational change. Successful or unsuccessful change efforts can be assessed in terms of adoption, profitability and market share but outcomes can also include resistance to change, organizational commitment or stress (Armenakis & Bedeian, 1999).

2.2.2 - Content Issues.

Content issues “largely focuses on the substance of contemporary organizational changes” (Armenakis & Bedeian, 1999, p. 295). This can include elements such as organizational strategy or organizational structure (Armenakis & Bedeian, 1999). It is what is actually changing – those things that an underperforming organization should be able to address to improve its performance (Self et. al, 2007). The Burke-Litwin Model of Organizational Performance and Change (Burke & Litwin, 1992) is a content model. It was designed to assess which dimensions of an organization lead to successful change. There are two different types of change that occur: episodic and continuous. Episodic change is an intentional, planned and deliberate change, while continuous change is unplanned, but is seen as ongoing and an adaption to an unexpected event (Weick & Quinn, 1999). Generally, episodic change is planned and

executed by an organization's executive management, while continuous change is dealt with by an organization's employees as part of day to day activities (Bouckenooghe, 2008). Episodic change takes on what is known as a technological approach while continuous change takes on what is known as the evolutionary approach (Van de Van & Poole, 1995). Continuous change, on the other hand is seen as a group of incremental adjustments and improvements in one part of the organization (Bouckenooghe, 2008). The content of change is very difficult to control (Bouckenooghe, 2008) and the focus of this research is on the change process rather than the content of the change.

2.2.3 - Process Issues.

Process issues dissect the various actions that occur to change the behaviour of individuals to create some new desired behaviour. Quite simply, change process refers to the action followed throughout the change (Bouckenooghe, 2008). Change process can be viewed in terms of a roadmap to be followed by change agents and assess how change is experienced as it unfolds (Armenakis & Bedeian, 1999). Process is one of the more controllable factors of change (Bouckenooghe, 2008) and will also be a focus of the current study.

Lewin's (1951) Force Field Analysis is an older and simplistic change model, but is also very popular and widely known. The initial state called frozen, is before changes have occurred and is set in equilibrium by driving forces, which are the various reasons for change, as well as restraining forces, which are various reason not to change. In order to initiate unfreezing when changes are occurring, an imbalance between the driving and restraining forces needs to be created by either increasing driving forces or removing restraining forces. The change process is stopped by reducing the driving forces, increasing the restraining forces or removing some forces

from either side to reach equilibrium. This simplistic model is the precursor to many other change models.

The Stages of Change model, developed by Prochaska and DiClemente (1983), was developed specifically around tobacco cessation and it illustrates how change is experienced. This model is broken into pre-contemplation, contemplation, action, maintenance and relapse. There are obviously many parallels with Lewin's (1951), but expands on the concept by including a relapse stage, where a return to old behaviours occurs, indicating a failed change effort. Although this was developed around additions, it is logical how it could be applied to an organizational setting.

There are many different models which have been developed for change in an organizational setting, all of which are foundationally similar to the above models and illustrate the growing issue of theoretical pluralism which characterizes current change literature (Bouckenooghe, 2008).

In terms of a process for change agents to follow, various authors (Lewin, 1951; Prochaska & DiClemente, 1983; Armenakis et al., 2000; Kotter & Cohen, 2002) present unique models for change management; however, each shares some commonalities. Summarized, these states could be pre-change, building up to change, changing, slowing change and keeping change. The area of concentration in the current study for all of the concepts studied, readiness for change, commitment to change, trust, and communication, fall into the building up to change state. As mentioned, failure to effectively unfreeze the current state is a key factor in organizations failing to successfully implement organizational change (Schein, 1999).

2.2.4 - Context Issues.

Contextual issues examine the general conditions under which change occurs (Bouckenooghe, 2008). More specifically, it refers to the forces and conditions in the organization's internal and external environment influencing the organization's ability to be effective (Armenakis & Bedeian, 1999). These circumstances focus specifically why an organization is changing and are broken down logically into external context and internal context (Self et. al, 2007). External contextual conditions, such as an industry change, might influence a firm's competitive ability to compete. This could be the driving force for a change, such as improving efficiency. Internal contextual conditions, which are also known as the climate of change, examine the perceptions and experiences that employees have about the internal environment of change (Bouckenooghe, 2008). These perceptions or experiences include such concepts as organizational politics or organizational trust. These factors would vary from one organization to the next and would influence how the organization is able to be effective on a day to day basis, especially during a change effort. Context is one of the more manageable factors of change (Bouckenooghe, 2008). This should not be interpreted as though employees can be told to perceive an experience a certain way, but they can be influenced, so context is a focus of the current study.

2.2.5 - Individual Attributes.

As a result of differences in an individual's personality, characteristics and professional background, people are each thought to react to the same events differently (Bouckenooghe, 2008). This is thought to be a result of different cognitive structures (Armenakis et al, 1993; Armenakis & Harris, 2002). These variables are relevant during the change process of planning

and implementing organizational change because they are likely to have an effect on the overall outcome of the change effort.

Individual attributes or differences are the characteristics of the individual being changed. As a change initiative progresses, individual attributes can change. Individual attributes can be very hard for a change agent to control (Bouckenooghe, 2008).

2.3 - Institutionalizing change

A current change process model that encompasses many past process model concepts (Lewin, 1951; Prochaska & DiClemente, 1983) is the model of institutionalizing change by Armenakis et al. (2000). Although other organizational change models exist, such as Kotter and Cohen's Heart of Change (2002), this model more broadly approaches the topic through an academic research perspective. The authors cite Lewin's Force Field Analysis (1951) and Bandura's (1986) social learning theory as the basis for their model. The primary function this model is meant to fulfill is a guideline for change agents to follow in planning and assessing progress during an organizational change effort. Armenakis et al. (2000) have also indicated that this model can be used to study the change process by providing a basis for hypothesis testing regarding the outcome of change efforts. It is a comprehensive model, but is broken down into five generic components of change: assessment, strategy, attributes, the change message and stages of change.

The stages of change component used in this model are consistent with other change process literature (Lewin, 1951; Prochaska & DiClemente, 1983; Kotter & Cohen, 2002) in terms of its components. The four stages of change are readiness, adoption, commitment and institutionalization. When readiness exists, adoption begins, followed by commitment and then

institutionalization. The change may fail at any one of these stages, potentially resulting in negative reactions such as turnover, absenteeism, etc. rather than the desired outcome (Becker, Billings, Eveleth, & Gilbert, 1996). Although this is nothing particularly unique about this component of the model, the proposed influence of the change message on the stages of change is of interest. The change message is composed of discrepancy, appropriateness, self-efficacy, principal support and personal valence.

Discrepancy is the gap between the current and ideal states, illustrating the need to change. This perception does not necessarily imply that the ideal state is the best solution, but at least better than the current. This is considered to be a context issue (Armenakis et al., 2000).

Appropriateness is why this change specifically will be able to close the gap identified. This is the perception that the change will be able to accomplish what it is meant to do and is considered to be a content issue (Armenakis et al., 2000).

Self-efficacy is confidence in the ability to make the change succeed. This perception includes the idea that the individual, group and organization are actually capable of making a change at all levels. This is considered to be an individual attribute (Armenakis et al., 2000).

Principal support is whether the key organizational leaders are supporting the change, not only through acknowledgments but also through actions. When top management is in agreement to support a change, at least in the view of others, readiness for change should be supported. This is considered to be a process issue (Armenakis et al., 2000).

Personal valence illustrates the intrinsic and extrinsic benefits of change for those involved. There needs to be some sort of tangible benefit to those involved in a change in order for them to support it and this is considered to be an individual attribute (Armenakis et al., 2000).

The change message is a core component of the institutionalizing change model. It has been proposed that change message has a positive impact on readiness for change, adoption and commitment to change, all of which will result in institutionalization of the change (Armenakis et al., 2000; Bernerth, 2004).

Significant influence on the change message comes from change agent attributes and organizational member attributes. Change agent attributes include things like honesty, competence and inspiration (Armenakis et al., 2000). These all help build the change agents credibility. Additionally, trust in the change agent is significant in institutionalizing change. Organizational member attributes that influence the change message, include individual differences and organizational differentiation (Armenakis et al., 2000).

There are several strategies identified for institutionalizing change. These include active participation, management of internal and external information, formalization activities, diffusion practices, persuasive communication, human resources management practices and rights and ceremonies. The change strategy that is selected will have a significant influence on how the change message is delivered, in combination with the change agent and organizational member attributes.

Assessment of the organization change comes after institutionalization but is also the beginning of the process. This is where a measurement occurs in terms of the success criteria of the organizational change. This would measure the difference between the current state and the desired state. This is the end of the change cycle and if the goals have not met, then the process begins again or the effort is a failure.

3 - Conceptual Framework and Research Hypotheses

The following model, shown in Figure 1, was developed to test some of the connections made in literature. Following the structure of the model, hypotheses are presented with supporting theory.

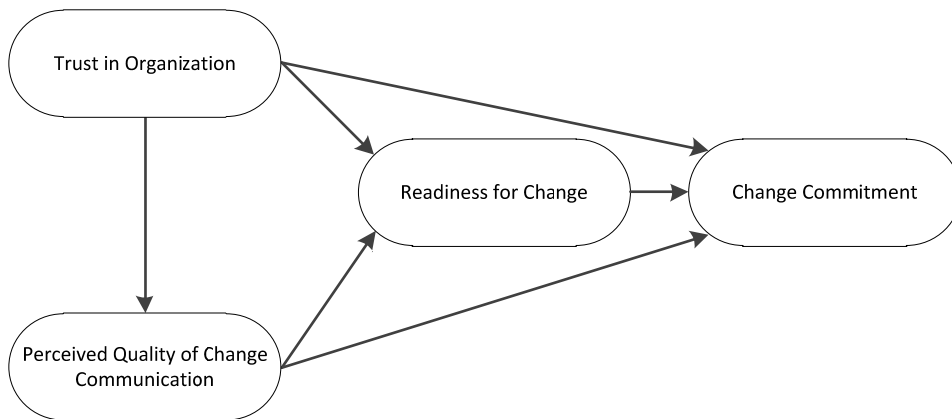


FIGURE 1 – The Role of Trust and Communication in Readiness for Change and Change Commitment

3.1 - Readiness for change

Readiness for change is conceptualized as a conscious state comprising beliefs and attitudes and intentions towards the change effort (Armenakis et al., 2000). Readiness for change is a comprehensive attitude influenced simultaneously by content, process, context and individual attributes (Holt et al., 2007). Readiness for change has been identified as a key

element of success in organizational change and is a state of mind held by employees that can be assessed to identify gaps in the expectations of the change leaders and employees

(Bouckenooghe, 2008). As readiness for change is considered an outcome, it is a criterion issue.

In one model of readiness for change it is broken into five distinct components called The Five Components to Create Readiness for Change: discrepancy, appropriateness, self-efficacy, principal support and personal valence, which are components of the multi-dimensional institutionalizing change model by Armenakis et al. (2000).

Readiness for change in the current study is conceptualized as a comprehensive attitude simultaneously influenced by content, process, context and individual attributes (Holt et al., 2007). This state of mind is attributed to the alignment of beliefs and cognitions of an organization's members and its leadership in regards to a change (Holt et al., 2007).

3.2 - Trust.

Trust is defined as “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party” (Mayer, Davis & Schoorman, 1995, p. 712) and this definition is consistent with other scholars in the field (Morgan & Hunt, 1994; Moorman, Deshpandé & Zaltman, 1993; Rotter, 1967). Trust is a component of an organizational climate (Bouckenooghe & Menguç, 2010), meaning it is a context issue. Trust serves as a guideline in the relationship between individuals, specifically in terms of openness, investment and spontaneity (Sztompka, 1998). When individuals interpret hierarchal relationships, trust is used to assess whether to cooperate when there is risk of exploitation. Trust takes on an importance during an organizational crisis, such as organizational

change (Colquitt & Salam, 2009). There are three distinct dimensions of trust that research has examined: ability, benevolence and integrity.

Ability is the relevant skills and job knowledge relevant to the situation at hand. For a leader to have his or her followers trust, these credentials need to be present (Mayer et al., 1995). It is important to note that Ability is only situation specific; a skilled and knowledgeable mechanic would probably not be able to transfer this ability to cardiac surgery. The remaining two concepts are less specific to a particular domain. Benevolence is the degree to which a leader shows goodwill towards his or her followers, for reasons which would not be motivated by personal gain. This is instead for a genuine positive interest in the other individual (Mayer et al., 1995). Integrity is the alignment a leader has with ethical and moral principles. This is not just limited to decision making in day to day business practices but also encompasses following through on commitments, consistency between actions and behaviours, as well as values such as honesty and openness (Mayer et al., 1995).

The benefits of trust generally do have positive outcomes for the organization. Colquitt and Salam (2009) identified the several as positive outcomes which can result from trust. These include: a redefined work relationship, creativity and innovation, job performance, communication and commitment.

Building on trust is the concept of organizational trust, which is similar in foundation, but is an individual's perception of trust in his or her supervisor and organization as a whole (Nyhan & Marlowe, 1997).

Any sort of organizational change has the potential for negative appraisal by an individual, regardless of the overall intention behind it. Preventing resistance to change is one of

the main goals of change management. When a change initiative first surfaces, it is plausible for an individual to have a full understanding of what the change process entails. Some change initiatives may very well not be in the individual's best interest either, which is related to the benevolence component of trust. An individual might feel like a change puts them at some sort of risk or vulnerability. With a low level of trust in an organization, an individual would not feel like the organization is overly concerned with his or her best interest, nor would there be such a willingness to take on a risk or vulnerability. This should lead to a negative appraisal of the change, taking away from an individual's readiness for change. In contrast, if an individual has a high level of trust in an organization, an individual would be more willing to take on a perceived risk or vulnerability associated with a change, have a more positive appraisal and therefore should have a higher readiness for change.

Trust in top management has been shown to be a determinant in openness to change, which is a similar concept to readiness for change (Rousseau & Tijoriwala, 1999; Eby, Adams, Russel & Gaby, 2000). In subsequent research, Madsen, Miller and John (2005) found that there was a slight relationship between positive social relationships and readiness for change. In that study, positive social relationships were a related construct to trust in the organization, while readiness for change was a similar, but different conceptualization. Madsen et al. (2005) conceptualized it as a phenomenon which occurs when an individual "understands, believes and intends to change because of a perceived need" (p. 216). Madsen et al. (2005) used an adapted measure of readiness for change developed by Hanpachern, Morgan and Griego (1998), further differentiating it from the current study. The benevolence component of trust (Mayer et al., 1995), which is a positive interest the other party, seems to parallel the change message's (Armenakis et al., 2000) component personal valence.

Hypothesis 1: Trust in the organization will be positively related to readiness for change.

3.3 - Communication

Human communication is the verbal and non-verbal transmission of meaning (Cai & Fink, 2009). A very commonly referenced work in academia when describing communications is Lasswell's comment (1948) that asks the questions: who, says what, in which channel, to whom & with what effect?

Verbal communication is the language, such as English, which is spoken or written during communication. Non-verbal communication, such the pitch or volume of speech, gesture and facial expression, can be used to supplement the meaning of verbal communication. Non-verbal communication can be any sort of interaction between two organisms (Mackay, 1975). At its most basic level, communication is a sender with a message for a receiver. It is obvious where communication fits in the models by Armenakis et al. (2000) or Kotter & Cohen (2002), which makes it a process issue. Communication has been associated with several change related components such as providing information, participatory involvement or employee engagement (Cai & Fink, 2009). Past research has shown that change information influences the change appraisals of employees (Bordia, Hunt, Pailson, Tourish & DiFonzo, 2004), providing support for its importance in the change process.

3.3.1 - Communication process.

Shannon (1948) wrote that the “fundamental problem of communication is that of reproducing at one point either exactly or approximately a message selected at another point” (p. 379). Shannon (1948) breaks the process into eight different components. There is a source,

which sends a message and is received by the destination. The transmitter encodes the message into a signal making it transferrable over the desired channel. The signal flows through the channel and there can be multiple signals. Noise obscures the signal as it is carried. The receiver decodes the message, and the destination is the person receiving the message. The main component missing from this model is feedback, which added in other models (Gerbner, 1956). Feedback is the response the receiver provides to the source, which is not necessarily another message; it might just be a grin during face to face communication.

Barnlund (1970) expands upon this by departing from the process of communication as linear. Rather than one message being sent at a time, parties are encoding and decoding messages simultaneously. This model further emphasizes the fact that communication is an interaction between two participants. Another distinction in Barnlund's (1970) model is that the acknowledgment that all behaviour can have meaning whether intended or not.

Quality of change communication is an individual's perception of the how informative and accurate the change information provided is (Bordia et al., 2004). The previously mentioned process models specifically identify communication (Armenakis et al., 2000; Kotter & Cohen, 2002) as an important factor for change management. Communication would fit into Lewin's (1951) model in the unfreezing stage, while in Prochaska and DiClemente's (1983) model it would fit into the contemplation stage. Past research has shown that just providing information is not just sufficient; the perceived quality of change information influences the change appraisals of employees (Bordia et al., 2004).

The five components to create readiness for change are thought to play an instrumental role on creating readiness for change. Perceived quality of change communication should play a

very important role in four out of the five components. Perceptions of discrepancy and appropriateness need to be effectively felt by both sides of the change and high quality communication would be the only logical way to ensure that these perceptions are shared. Individuals need to understand that they can succeed in the change and that there is some benefit to them, which again, high quality communication would be the only logical way to disseminate.

Hypothesis 2: Perceived quality of change communication will be positively related to readiness for change.

Trust is a guideline in a relationship in terms of openness, investment and spontaneity (Sztompka, 1998). An individual's perception of openness and investment should be particularly important during a change communication. The components of trust, ability, benevolence and integrity, seem to be a logical framework for an individual interpreting a change communication. Questions an individual might ask when interpreting a change message are: Does the change agent have the ability to complete the change? Is the change agent considering my interest in this proposed change? Does the change agent normally make ethical and moral decisions? As communication includes non-verbal interactions (Cai & Fink, 2009), it can be inferred that a perception of high quality change communication is facilitated by trust. The three components of trust are ability, which is having competence, benevolence, which is showing a positive interest in the other party and integrity, which is illustrated by matching actions to words (Mayer et al., 1995), might therefore be inferred through communication. Although trust is often examined in terms of how it is affected by communication, some research has found that communication is affected by trust (Gaines, 1980; van Vuuren, de Jong & Seydel, 2007; Chory & Hubbell, 2008).

Hypothesis 3: Perceived quality of change communication will partially mediate the impact of trust in the organization on readiness for change.

3.4 - Change commitment

Generically, commitment in the context of a relationship is “an exchange partner believing that an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it” (Morgan & Hunt, 1994, p. 23). The outcomes of relationship commitment are generally positive. Organizational commitment is a relationship commitment, which has been shown to reduce tardiness, turnover, absenteeism, while improving job satisfaction and performance (Reichers, 1985).

Change commitment is another relationship commitment that is pledging obligation to a particular change and is a criterion issue. Change commitment is distinctly different from organizational commitment (Fedor, Caldwell & Herold, 2006; Ford, Weissbein & Plamondon, 2003). This construct is not just a lack of resistance to change or negative attitudes (Kotter & Schlesinger, 1979), but instead its own unique concept. It could be very possible to be committed to a change, but also be resistant to it. Change commitment is different than some of the other constructs associated with a favourable attitude towards change, such as readiness for change or openness to change, in that it is a behavioural intention to work towards the success of a change (Fedor et al., 2006). An employee’s effort to work towards the success of a change is important if an organization is to realize the benefits of a change (Armenakis et al., 1993).

Complementary to the work of Armenakis et al. (2000), is the tridimensional framework first suggested by Piderit (2000) which was later refined by Bouckenooghe (2008). Bouckenooghe (2008) acknowledges the importance of the work of Armenakis et al. (2000), but

states that a shortcoming is that it only focuses on the cognitive dimension of readiness for change. The components in this model are separated into affective, cognitive and behavioural intention. The reason for the different perspective is important as Bouckenooghe (2008) explains:

This tridimensional view is essential because the ways in which affective, cognitive and intentional responses become manifest do not always coincide. People may exhibit feelings in support of change (affect), but their risk-benefit analysis of the change outcome (cognition) might inhibit their behavioural intentions (p. 26).

The Holt et al. (2007) conceptualization captures the emotional and cognitive dimensions of readiness for change, but lacks the behavioural intention dimension that Bouckenooghe (2008) uses. Change commitment is conceptualized as an individual's intention to follow through with a proposed organizational change (Fedor et al., 2006). Although integrating actual change at the end of the change process into data might be more ideal, it would be much more difficult due to time constraints and measurement practicality. Commitment to change is a psychological state (intention) which is shaped through an employee's feelings (affect) and assessment (cognition) surrounding a change situation (Bouckenooghe, 2008). As previously mentioned, the readiness for change conceptualization by Armenakis et al. (2000) does not capture change intention, but Bouckenooghe (2008) does include it in his model, so change commitment is meant to capture an individual's intent to follow through with a change as well as compensate for this missing component. By operationalizing change commitment as a separate construct, it is possible to examine the association between the cognitive and affective components of readiness for change with commitment as an intention.

The connection between behavioral intention and actual behavior is established in the work of Ajzen and Fishbein (1974), which revealed a strong correlation between the two, though intervening events can weaken this. Piderit (2000) also highlights the importance of intention as an important indicator of support for a change.

Hypothesis 4: Readiness for change will be positively related to change commitment.

Previous research has shown that there is a positive association between change communication and change commitment (Conway & Monks, 2008), but testing readiness for change as a mediator may help to explain the nature of this association. Expanding further on Hypothesis 2 and Hypothesis 4, the following hypothesis was developed:

Hypothesis 5: Readiness for change will mediate the association between perceived quality of change communication and change commitment

Similarly, research has shown that there is a positive association between trust in the organization and change commitment (Michaelis, Stegmaier & Sonntag, 2009), but testing readiness for change as a mediator may help to explain the nature of the association. Expanding further on Hypothesis 1 and Hypothesis 4, the following hypothesis was developed:

Hypothesis 6: Readiness for change will mediate the association between trust in the organization and change commitment.

In Study 1, qualitative data was also gathered in the form of open ended questions surrounding the Holt et al. (2007) conceptualization of readiness for change for one component

of study. This information was collected to help uncover potential explanations for *why* some individuals were more ready for change than others.

The framework shown in Figure 2, expands upon Figure 1, but shows hypotheses. I sought to determine if employees with higher perceptions of trust in the organization had a higher level of readiness for change, if employees with higher perception of quality of change communication had a higher level of readiness for change, how the impact of perceived trust in management on readiness for change could potentially be mediated by quality of change communication, and to see how readiness for change was related to change intention.

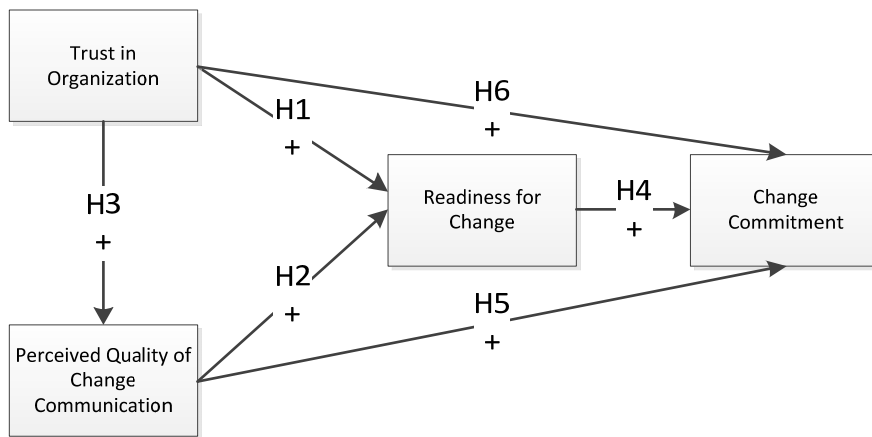


FIGURE 2 – The Role of Trust and Communication in Readiness for Change and Change Commitment

4 - Research Methodology

4.1 - Data collection

In order to explore the potential relationships between the constructs and readiness for change, two separate studies (one quantitative and one mixed-method) were conducted, effectively segmenting this thesis. These studies occurred at two different locations within a single organization in regard to the same episodic change initiative. Both surveys did, for the most part, contain the same questions, but one was based on current events and issued twice, while the other was based on past experience and had an additional qualitative component. A self-administered survey was used in both cases and was distributed online. This distribution method made it easy for respondents to participate because it could have been done when convenient and most of the target population had computer access and efficacy. It also reduced some of the potential lead time between issuing a survey and receiving a response, reduced some of the costs associated with other more traditional survey methods and helped also avoid erroneous non-response issues by performing input validation to ensure all questions were answered (Leeuw, Hox & Huisman, 2003). There were, however, the options for “don’t know” and “choose not to answer” to prevent a respondent from abandoning the survey if they did not want to answer a question.

The studies were performed within a large mining corporation in cooperation with its executive management. At the time of study, the company was a leading gold producer with operating assets and developing projects in North and South America. The specific change situation that was studied was the implementation of Microsoft SharePoint across the organization.

Microsoft SharePoint is a business collaboration platform which is designed to deliver productivity and cut costs by simplifying how people find and share information (Microsoft Corporation, 2010). Using SharePoint, a web portal can be created to share information, manage documents and publish reports, all within a familiar, easy to use interface (Microsoft Corporation, 2010). An example screenshot of SharePoint can be seen in Figure 3.

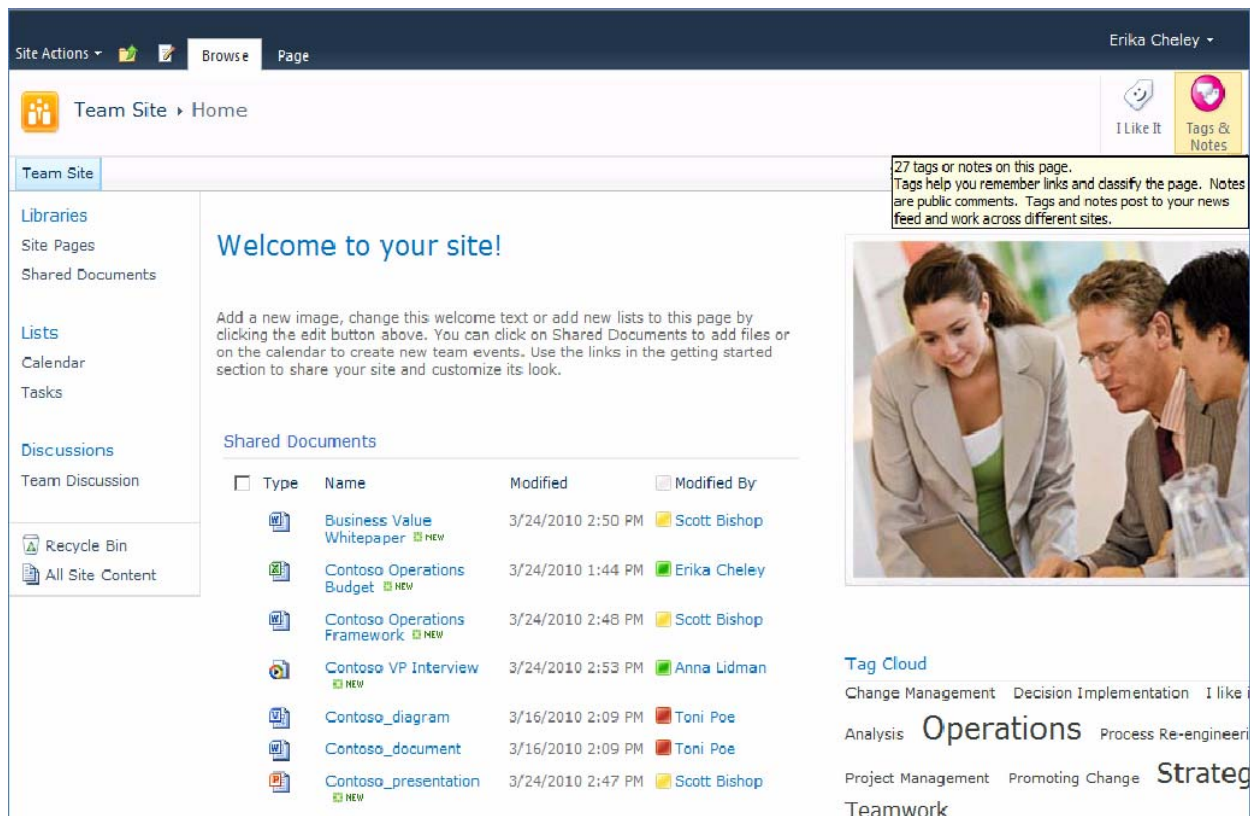


FIGURE 3 – Microsoft SharePoint Screenshot (Microsoft Corporation, 2010)

In this instance, Microsoft SharePoint was being used as a portal and collaboration tool. The two sites where the studies took place were located in Northern Ontario, Canada, henceforth referred to as sites A and B. Of the two sites studied, Site A had fully embraced the new system while Site B had not. During the study, a change agent was in the process of travelling to the different sites through the organization, presenting the system to key managers and users. Many

sites within the organization seemed to be reluctant to use the system prior to the presentation, but after the presentation usage metrics indicate that usage goes up. This implementation process was expected to continue on until the end of 2011.

A third party organization that specializes in providing research consulting services was used to issue the surveys and facilitate data collection. The reason for contracting this service was to ensure participant anonymity, improve accuracy in the responses, and to avoid participant apprehension related to the fact that the researcher was also an employee at one of the corporation's sites for roughly half the time the study took place. This company also made implementing and computer-based response methods more streamlined and feasible. They received a precompiled list containing the email addresses of the population, provided customized links for each individual, but concealed these links from anyone but the recipient. This also made it seamless to link responses at Site B where participants completed two surveys and ensured no one participated in the survey more than once. Management at each of the sites sent an email, as seen in Appendix 9.5.1 and 9.5.2, confirming the approval of the study, otherwise some recipients might have questioned its authenticity. Management encouraged participation, but reiterated the fact that it is only to be done voluntarily. The researcher was responsible for conducting the data analysis and interpretation, but was unable to link responses to individual participants as any identifying data was removed by the third party data collection organization.

4.2 - Studies

4.2.1 - Study 1.

Site A operates Monday to Friday, from nine to five, in and around a town of approximately 43,000. This is the site where the system was initially launched. This was a pilot

project where an individual was assigned as the change agent. This individual got the support of the general manager of the site, whose leadership position was used to communicate the value and benefits of the system. Once Site A was deemed to be a success, the change agent was assigned the task of implementing it across the entire organization.

This survey asked the respondents to recall their past experience with the change and was issued at a single point in time, therefore it was cross-sectional. In addition to the quantitative questions which were common to both studies, this study contained five qualitative questions making it a mixed methods design. These questions were surrounding the components of the Holt et al. (2007) conceptualization of readiness for change. These questions were developed using the guidelines set out by Agee (2009) for creating qualitative survey questions and are based on the critical incident technique (Flanagan, 1954). Critical incident technique identifies a specific event that has positive or negative influence in a specific situation (Flanagan, 1954).

4.2.1.1 - Sampling

Participants were selected by taking a list of the names and company email addresses of employees associated with Site A that had access to the SharePoint system, resulting in a population of 305. Based on company metrics there was almost 100% usage of this system at this site. This list was given to the data collection company, which then sent invitations to participate as seen in Appendix 9.3.1. An endorsement email was sent out by site management as seen in Appendix 9.5.1 and a reminder email midway through data collection. The resulting 85 participants made for a response rate of 27.9%, which is slightly lower than the expected response rate of 34.6% provided by Cook, Heath and Thompson (2000).

4.2.2 - Study 2.

Something that is unique about Site B is its work schedule. Workers at Site B typically have a schedule of two weeks on, two weeks off, with twelve hour shifts. Other variations of schedules exist as well. During employees' time on, they reside at an onsite camp with dormitory, food service and recreation facilities all provided as part of the employment agreement. Operations typically run 24 hours a day, so there is a day shift and night shift for most of the production based departments. This results in some departments being segmented into different crews, for day shift and night shift, as well as cross-shifts to fill an employee's role during off time. The reason for this schedule is the remote location to which employees must travel to work; the closest town is 200 kilometres away.

Two surveys were issued, running for approximately three weeks at a time was. This was to accommodate the two week work schedule, allowing for more participation. These surveys were separated by a period of approximately three weeks with the intention of allowing the change process to advance as implementation efforts were in progress. Due to the survey being issued at a two points in time using the same respondents, this was a longitudinal panel design. A longitudinal design has been recommended by many previous authors to help understand how this phenomenon develops over time, which have so far been scarce (Allen, Jimmieson, Bordia & Irmer, 2007; Bouckenooghe, 2008; Madsen et al., 2005). The two surveys were identical in terms of items contained within them, with the intention of finding some sort of measurable variation in some of the variables between the two points in time. Demographic variables, however, were only collected at Time 1. This was later modified to a cross-sectional study based on a lack of difference between Time 1 and Time 2 data.

4.2.2.1 - Sampling

Originally, the population for Site B was estimated at 520, but this was later reduced when those who could not access the system were removed reducing the population to 491. Initial attempts to implement the SharePoint program at Site B were not successful. As indicated by usage metrics, only about 45% of users were using the system. The resulting 89 participants made for a response rate of 18.1%, which is significantly lower than the expected response rate of 34.6% provided by Cook et al. (2000). One potential explanation for this is that although many individuals have access to the system, many may not yet be accessing it.

As in Study 1, participants were selected by taking a list of the names and company email addresses of employees associated with Site B that had access to the SharePoint system. This list was given to the data collection company, which then sent invitations to participate as seen in Appendix 9.3.2. An endorsement email was sent out by site management as seen in Appendix 9.5.2.1 and so was a subsequent email to deal with a technical issue which might have prevented participation, which can be seen in Appendix 9.5.2.2. A reminder email was sent midway through data collections at Time 1 and Time 2. After the Time 1 survey had closed, a period of three weeks elapsed and the second invitation to participate was sent, this time resulting in a sample of only 57 for Time 2. The follow through response rate was 64%. The most likely explanation for this is that the site was evacuated during the second data collection due to a natural disaster. To deal with the concern of non-response bias, a comparison of the means between those who completed both surveys and those who completed just Time 1 was conducted. There were no significant differences in the scores at Time 1 for those that responded at Time 2 and those that did not.

4.3 - Measures

The questionnaire was based on several pre-existing scales from literature published in peer reviewed journals. All of the scales have been tested for validity and reliability in previous studies. Each variable was measured on a separate seven-point Likert scale and the scores were calculated by taking the mean of the items for that particular scale. In total, there were 53 items on the survey used in Study 1 and 48 items on the surveys in Study 2. The same survey for Site B was administered at Time 1 and again at Time 2, less the four demographic variables. A summary of the measured used in each survey is below in Table 2.

Table 2: Summary of Measures in Each Survey

Study 1	Study 2- Time 1	Study 2 – Time 2
<ul style="list-style-type: none">• Quality of Change Communication	<ul style="list-style-type: none">• Quality of Change Communication	<ul style="list-style-type: none">• Quality of Change Communication
<ul style="list-style-type: none">• Organizational Trust	<ul style="list-style-type: none">• Organizational Trust	<ul style="list-style-type: none">• Organizational Trust
<ul style="list-style-type: none">• Readiness for Change	<ul style="list-style-type: none">• Readiness for Change	<ul style="list-style-type: none">• Readiness for Change
<ul style="list-style-type: none">• Change Commitment	<ul style="list-style-type: none">• Change Commitment	<ul style="list-style-type: none">• Change Commitment
<ul style="list-style-type: none">• Demographic Variables	<ul style="list-style-type: none">• Demographic Variables	
<ul style="list-style-type: none">• Critical Incidents		

4.3.1 - Quality of change communication.

The perceived quality of change communication scale (Appendix 9.1.1) was taken from the study performed by Bordia et al. (2004) which they adapted from the work of Miller and Monge (1985). Other studies (Allen et al., 2007; Rafferty & Restubog, 2010) also base quality of change communication scales on the work of Miller and Monge (1985). This scale was selected because it is a short, but valid scale and has an internal consistency alpha coefficient of .89 (Bordia et al., 2004). The internal reliability for both Study 1 and Study 2 were found to be .94, which were sufficient to proceed with analysis.

4.3.2 - Organizational trust.

The organizational trust inventory (Appendix 9.1.2) is a twelve item Likert type scale designed to measure an individual's trust in his or her supervisor and organization as a whole (Nyhan & Marlowe, 1997). This was developed using a one factor, two factor and null model. The author's subjected this scale to three different study groups and found the alpha coefficients to be approximately .95 in each of the tests. In Study 1, the internal reliability was .94, while in Study 2 it was .95, both of which were sufficient to proceed with analysis.

4.3.3 - Readiness for change.

A multidimensional scale (Appendix 9.1.3) developed by Holt et al. (2007) is based upon the framework presented by Armenakis and Bedeian (1999) for readiness for change. Holt et al. (2007) categorized each of the five message components to create readiness for change into this framework, but merged the ideas of discrepancy and organizational valence as a unitary construct based on the results of a factor analysis.

One of the reasons that this scale was selected is its focus on the five message components to create readiness for change, because quality of change communication is also a variable of interest, it would make a better match than an alternative scale developed by Bouckenoghe (2008) which instead conceptualizes readiness for change in terms of affective, cognitive and behavioural intentions. Despite these differences, both scales are based on the framework by Armenakis and Bedeian (1999).

Holt et al. (2007) have stressed the importance of reliability and validity in a scale used to measure readiness for change due to the time and effort expended on implementation, so when

developing their own scale, they made no exception. In Study 1, the reliability was .89, while in Study 2 it was found to be .90, both of which were sufficient to proceed with analysis.

4.3.4 - Change commitment.

The change commitment scale (Appendix 9.1.4) was taken from a study by Fedor et al. (2006). They developed this scale based on intentions as a representation of commitment based on a four item, Likert type scale with an alpha coefficient of .74 (Fedor et al., 2006).

Commitment makes for a strong measure of what an individual is likely to do, without actually waiting for the action to take place because intention has a direct influence on actual behavior (Bouckennooghe, 2008). In Study 1, the internal consistency was .89, while in Study 2 it was .92, both of which were sufficient to proceed with analysis.

4.3.5 - Demographic variables.

Additionally, individual attributes were collected including department, age, tenure and education to explore any other potential relationships which may be present. Although a few authors investigating readiness for change have failed materialize a link to age, gender, education and marital status (Cunningham et al., 2002; Weber & Weber, 2001), few studies have been completed on readiness for change and demographics (Madsen et al., 2005) and these variables were also useful control variables during analysis. These were also compared with each of the study variables including trust in the organization, readiness for change, quality of change communication and change commitment.

4.4 - Data Analysis and Interpretation

This thesis was composed of one purely quantitative study and a mixed methods study, so both quantitative and qualitative data analysis methods were used.

For the quantitative components, a number of statistical tests were used, including correlations, means, and standard deviations within the sample. To test direct relationships between variables, mediation and moderation, linear regression tests were used (Baron & Kenny, 1986). Mediation was further scrutinized through a Sobel test (MacKinnon, Lockwood, Hoffman, West & Sheets, 2002).

For the qualitative components, because data was collected using the critical incident technique, the associated analysis was used. This involved classifying critical incidents and identifying critical behaviours, which were then put into mutually exclusive categories and sub-categories which become increasingly specific (Hughes, 2007). These categories were not known ahead of time, but developed as the data was examined (Hughes, 2007).

When looking at data longitudinally, there are many options available for analysis such as growth curve analysis, discrete time event history analysis and multilevel growth curve models (Menard, 2002). These are somewhat sophisticated and when looking at a longitudinal data for only two measurements, so the data was instead reduced to a problem where cross-sectional analysis applied (Twisk, 2003). Using the following equation, the relative distance between the two measurements of the same variable calculates change, while taking in to account floor or ceiling effects:

$$\Delta Y = \frac{(Y_{it2} - Y_{it1})}{(Y_{\max} - Y_{\min})} \times 100\% , \text{ where } Y_{it2} \text{ is the observation for subject } i \text{ at time 2 and } Y_{it1} \text{ is}$$

the observation for subject i at time 1 (Twisk, 2003).

This same data was also examined cross-sectionally, where the independent variables were taken from Time 1 and dependent variables from Time 2, creating psychological separation of measurement (Podsakoff, MacKenzie, Lee & Podsakoff, 2003).

4.4.1 - Common method variance.

According to Podsakoff et al. (2003) common method variance presents a potential problem in behavioural research, but they also provide suggestions on overcoming it. Collecting data at separate times is a commonly cited method (Rindfleisch, Malter, Ganesam & Moorman, 2008) which was used in the current study, but there are also specific methods that can be used to further mitigate the risk of common method variance.

Some techniques integrated into this research method were protection of respondent anonymity, reduction of evaluation apprehension, and reverse coding. Ensuring anonymity should have helped the respondents answer questions more freely, without the fear of repercussions. Reduction of evaluation apprehension was attempted by stating that there was no right or wrong answer. This should have helped individuals to be more truthful in their responses, rather than modifying them to be more socially desirable, lenient, acquiescent, or what they believe the researcher was expecting (Podsakoff et al., 2003). Reverse coding is present in some of the scales, which should have helped further reduce acquiescence (Lindell & Whitney, 2001).

4.5 - Ethical issues

A variety of recommendations by Borgatti and Molina (2005) for conducting research were followed. Anonymity was a very important factor in the current study, not only to get more accurate responses from the employees, but to protect them from any potential action as a result

of their responses. If there were an employee or group that particularly lacks readiness for change, it would be wrong to identify them. Although one might argue that it would allow for corrective measures to be taken on the specific individuals, this corrective measure might potentially lead to termination or a poor performance review. Any corrective measure which would be taken should be focused on the organization as a whole.

Anonymity should not only extend to the respondent's name, but also to information which might readily identify them. Some of the demographic information that will be collected might single out a particular individual. For example, there were many departments which overwhelmingly consisted of males. Collecting gender in such an instance would likely prove to be statistically irrelevant, and also identify the few females in those departments. For this reason, gender was not collected. Age and tenure were collected, but within three year intervals to help protect privacy. The company will remain unnamed, the names of any personnel have been removed and so was the internal name of the SharePoint system. The data was encrypted and will be stored securely for five years in the office of the author's supervisor, as per university policy.

Participants were provided with consent information prior to completing the survey, which outlined the voluntary nature of the study, what the participant was taking on, assurance of anonymity and the ability to withdraw at any time. Consent was implied by submitting a survey, which was explicitly stated in the consent information.

Another reason that anonymity was so important in the study is that the researcher was also an employee at one of the study organization sites for roughly half of the data collection period. It would be very unethical for the researcher to be able to identify specific coworkers'

responses. As a result of this, the raw data was never accessed, stored or transmitted on company computers or data stores.

Although unlikely, there was a chance that some of the employees at the research site are under the age of eighteen. They would not be legally able to consent to participate, so they were excluded from the study.

These potential ethical issues are mitigated by the use of a third party company to conduct the data collection, which helped ensure that the integrity of the research was maintained. This third party company sent the population individualized survey links, which were only be known to the third party company and the recipient of the message. Any identifying data was stripped from the data set. This effectively concealed the identity of the participants from the researcher.

Additionally, the research proposal for this thesis required approval from Lakehead University's Research Ethics Board because it involved human research subject. Approval was received as per the letter in Appendix 9.6.

5 - Results

5.1 - Study 1

5.1.1 - Quantitative.

Means, standard deviations, correlations, and reliabilities are reported in Table 3, all were calculated using pairwise deletion with data from Site A. Hypotheses were tested with linear regression, using listwise deletion. The analyses included age, tenure and education as control variables. The model with effect sizes is shown in Figure 4.

	M	SD	1	2	3	4	5	6	7
1. Age	6.68	2.2	<i>na</i>						
2. Tenure	4.26	2.01	.56**	<i>na</i>					
3. Education	5.22	1.54	-.42**	-.29**	<i>na</i>				
4. Change Communication	4.89	1.08	-.01	-.02	.04	(.94)			
5. Trust	5.55	1.00	.01	-.05	.16	.38**	(.94)		
6. Readiness for Change	5.46	.73	.17	.13	-.03	.39**	.43**	(.89)	
7. Change Commitment	5.66	1.00	.19	.13	-.07	.57**	.33**	.77**	(.89)

** p < .01.
Pairwise deletion used N = 82 - 85

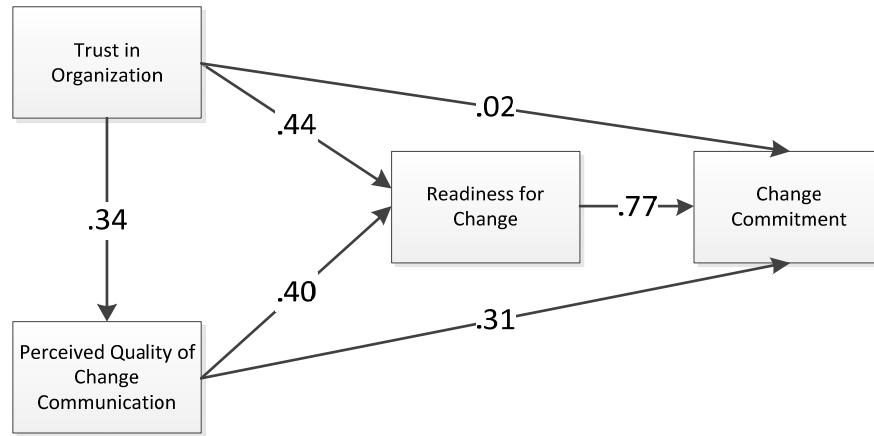


FIGURE 4 – Study 1 Relationships with effect sizes (β)

A linear regression was done to test for the hypothesized relation between trust and readiness for change. The results indicate a significant and positive association ($\beta = .44$, $\Delta R^2 = .19$, $F(1, 79) = 18.50$, $p < .001$) and are displayed in Table 4. Therefore Hypothesis 1 is supported.

Table 4: Results of Regression Analysis: Study 1 - Hypothesis 1

		Dependent Variable
		Readiness for Change
		β
Step 1	Age	.17
	Tenure	.05
	Education	.06
R^2		.03
Step 2	Age	.11
	Tenure	.07
	Education	-.04
	Trust	.44***
ΔR^2		.18***
* $p < .05$		** $p < .01$
		*** $p < .001$

There was a positive significant relation between change communication and readiness for change ($\beta = .40$, $\Delta R^2 = .16$, $F(1, 77) = 14.89$, $p < .001$) supporting Hypothesis 2. The results of the regression are displayed in Table 5.

Table 5: Results of Regression Analysis: Study 1 - Hypothesis 2

		Dependent Variable
		Readiness for Change
		β
Step 1	Age	.19
	Tenure	.02
	Education	.05
R^2		.03
Step 2	Age	.19
	Tenure	.03
	Education	.05
	Change Communication	.40***
ΔR^2		.16***
* $p < .05$		** $p < .01$
		*** $p < .001$

Building on the results in the regression for Hypothesis 1, change communication was included in the model. When change communication is included in the analysis, the strength of the association between trust and readiness for change decreased from ($\beta = .44, p < .001$) to ($\beta = .34, p < .01$) and the Sobel statistic is statistically significant (Sobel = 2.06, $p < .05$) indicating that change communication partially mediates the association between trust and readiness for change. These findings provide support for Hypothesis 3. The results of the regression are displayed in Table 6.

Table 6: Results of Regression Analysis: Study 1 - Hypothesis 3		
		Dependent Variable
		Readiness for Change
		β
Step 1	Age	.19
	Tenure	.02
	Education	.05
	R^2	.00
Step 2	Age	.14
	Tenure	.02
	Education	-.05
	Trust	.44***
	ΔR^2	.19***
Step 3	Age	.15
	Tenure	.02
	Education	-.03
	Trust	.34**
	Change Communication	.26*
	ΔR^2	.06**

* $p < .05$ ** $p < .01$ *** $p < .001$

Based on feedback from one of the examiners of the thesis proposal, post-hoc analysis was conducted to determine if communication moderated the association between trust and

readiness for change. Perceived Quality of change communication and trust in the organization were centered before calculating the interaction and performing the regression. The results were not significant ($\beta = .09$, $\Delta R^2 = .006$, $F(1, 75) = .68$, $p = .41$) indicating that there is no interaction effect in this sample. The results of this regression are in Table 7.

Table 7: Results of Regression Analysis: Study 1 - Interaction		
		Dependent Variable
		Readiness for Change
		β
Step 1	Age	.19
	Tenure	.02
	Education	.05
R^2		.03
Step 2	Age	.15
	Tenure	.02
	Education	-.03
	Trust ¹	.34**
	Communication ¹	.27*
ΔR^2		.25***
Step 3	Age	.15
	Tenure	.02
	Education	-.04
	Trust ¹	.38
	Communication ¹	.24
	Interaction	.09
ΔR^2		.01
¹ Variables are Centred * $p < .05$ ** $p < .01$ *** $p < .001$		

Readiness for change and change commitment were significantly and positively related ($\beta = .77$, $\Delta R^2 = .57$, $F(1, 78) = 111.45$, $p < .001$), supporting Hypothesis 4. The results of the regression are displayed in Table 8.

Table 8: Results of Regression Analysis: Study 1 - Hypothesis 4

		Dependent Variable
		Change Commitment
		β
Step 1	Age	.17
	Tenure	.05
	Education	.01
	R^2	.04
Step 2	Age	-.01
	Tenure	.05
	Education	.00
	Readiness for Change	.77***
	ΔR^2	.57***
	* $p < .05$	** $p < .01$ *** $p < .001$

Additional analyses were conducted to test for mediation by readiness for change between the antecedents (trust and change communication) and change commitment. With change commitment as the dependent variable and perceived quality of change communication as the independent variable, a significant association was found ($\beta = .57$, $\Delta R^2 = .32$, $F(1, 76) = 38.12$ and $p < .001$). When readiness for change was included in the analysis, the association between perceived quality of change communication and change commitment decreased from ($\beta = .40$, $p < .001$) to ($\beta = .31$, $p < .001$) and the Sobel statistic is statistically significant (Sobel = 3.52, $p < .001$) indicating partial mediation. This finding supports for Hypothesis 5. The results of the regression are displayed in Table 9.

Table 9: Results of Regression Analysis: Study 1 - Hypothesis 5

		Dependent Variable
		Change Commitment
		β
Step 1	Age	.17
	Tenure	.03
	Education	.00
	R^2	.04
Step 2	Age	.17
	Tenure	.04
	Education	.00
	Change Communication	.57***
	ΔR^2	.32***
Step 3	Age	.01
	Tenure	.08
	Education	.00
	Change Communication	.31***
	Readiness for Change	.64***
	ΔR^2	.32***
	* $p < .05$	** $p < .01$ *** $p < .001$

Similar analyses were conducted for Hypothesis 6. Trust was significantly related to change commitment ($\beta = .34$, $\Delta R^2 = .11$, $F(1, 78) = 10.12$ and $p < .01$) and when readiness for change was included in the analysis, trust was no longer significant ($\beta = .02$, $p = .835$) and the Sobel statistic was statistically significant (Sobel 3.90, $p < .001$) indicating full mediation and supporting Hypothesis 6. The results of the regression are displayed in Table 10.

Table 10: Results of Regression Analysis: Study 1 - Hypothesis 6

		Dependent Variable
		Change Commitment
		β
Step 1	Age	.17
	Tenure	.00
	Education	.01
R^2		.04
Step 2	Age	.11
	Tenure	.06
	Education	-.06
	Trust	.34**
ΔR^2		.11**
Step 3	Age	.00
	Tenure	.06
	Education	.00
	Trust	.02
	Readiness for Change	.76***
ΔR^2		.45***
* $p < .05$		** $p < .01$
		*** $p < .001$

5.1.2 - Qualitative.

Results from Site A data are logically organized in terms of discrepancy, appropriateness, self-efficacy and personal benefit, as were the questions. These results are further divided between change specific and non-change specific themes. Change specific themes are themes which are unique to this particular change situation, were non-change specific themes can be more generally applied to other change situations. Overall themes are summarized in Table 11, while change specific and non-change specific themes are in Table 12 and Table 13 respectively.

Table 11: Summary of Overall Themes

Theme	Discrepancy	Appropriate -ness	Self- Efficacy	Management Support	Benefit	Total
Access to information	13*	11*	8*	6*	10*	48*
Collaboration	4*	3*	2*		3*	12*
Communication	4*	5*	2*	2	4*	17*
Community	2*	1		1	2*	6
Consultation		1	1	2		4
Easy to use			5*		1	6
Job integration			1	3*		4
Making Job Easier	2*	5*	1		6*	14*
Positive Colleague Appraisal			1	3*	1	5
Training	1		6*	2		9
Work from Home Management	2*	1				3
Commitment				2		2
Management Endorsement				4*		4
Management Involvement				3*		3
Management Usage				7*		7
Not Better Than Before						1
Insufficient Resources			1			1
Negative Appraisal from Colleague	1	1	1			3
No Incentive				1	1	2
No Management Support				1		1
Technical Issue	1	3*	2*	3*	1	10*

*Top 5 themes

Table 12: Summary of Change Specific Themes

Theme	Discrepancy	Appropriateness	Self-Efficacy	Management Support	Benefit	Total
Access to information	13*	11*	8*	6*	10*	48*
Collaboration	4*	3*	2*		3*	12*
Communication	4*	5*	2*	2*	4*	17*
Community	2*	1*		1*	2	6*
Work from Home	2*	1*				3*

*Top 5 themes

Table 13: Summary of Non-Change Specific Themes

Theme	Discrepancy	Appropriateness	Self-Efficacy	Management Support	Benefit	Total
Consultation		1*	1*	2		4
Easy to use			5*		1*	6*
Job integration			1*	3*		4
Making Job Easier	2*	5*	1*		6*	14*
Positive Colleague Appraisal			1*	3*	1*	5
Training	1*		6*	2		9*
Management Commitment				2		2
Management Endorsement				4*		4
Management Involvement				3*		3
Management Usage				7*		7*
Not Better Than Before						1
Insufficient Resources			1*			1
Negative Appraisal from Colleague	1*	1*	1*			3
No Incentive				1	1*	2
No Management Support				1		1
Technical Issue	1*	3*	2*	3*	1*	10*

*Top 5 themes

5.1.2.1 - Discrepancy

Discrepancy relates to the gap between the current and ideal states, indicating a need to change. Participants were asked to recall an incident that changed their feeling that there was a problem that needed to be solved. For change specific themes that arose from this question, *problems with access to information* was the most dominant theme. Before the SharePoint system was implemented there were problems with multiple copies of documents in different locations, making it challenging to find the right file. Having a way to access the information between sites, departments or individuals was also a problem. There was no central place to access the correct information. The other themes of *difficulties with collaboration*, *communication barriers*, *a missing sense of a corporate community*, and *problems with working from home* are related to the issue of *access to information*.

For non-change specific themes, *longing for a way to make a job easier* was the most dominant, which was tied to employee's ability to work from home. People wanted to be able to work late without being at the office or to access information from home. Another theme was that other systems had *technical issues* that were presumably unresolved. To the respondents, some of these systems could be easily replaced by SharePoint.

5.1.2.2 - Appropriateness

Appropriateness is why this change specifically will be able to close the gap identified. Participants were asked to describe an incident that led them to believe that the SharePoint program would provide a solution to an organizational problem. For change specific themes which arose from this question, *access to information* was the most dominant theme. SharePoint's main purpose is to provide a portal to access information and most responses about accessing information made reference to a centralized location that everyone can access from

anywhere. The themes of *collaboration* frequently referred to having a way of sharing information with departments and working with others. *Creating a sense of corporate community* between Site A and the corporate office and between different departments also was identified.

For non-change specific themes, the most dominant theme was *making the job easier*. One individual wrote how this system reduced some of the steps associated certain tasks, while another wrote about the benefit of creating a paperless approval system. Being able to *work from home* also frequently came up as a way this change *made the job easier*. Negative appraisals came up for this question, some of which were related to *technical issues*. Most mentioned the slow speed of access to the system, but one mentioned that it was harder to frequently access a large volume of documents in the web based interface.

5.1.2.3 - Self-Efficacy

Self-efficacy is confidence in the ability to make the change succeed. Participants were asked to recall an incident that changed their feeling that they would be capable of making the change and using the system. For change specific themes that arose from this question, *access to information* was the most dominant theme. For this question, most respondents spoke about actually being able to find specific information as a reason for creating self-efficacy. Two seemingly intertwined themes that were relevant here are *collaboration* and *communication*, where the respondents would have information they would need to share with other but especially when others would need to share with them. This ability to access and share information increases the belief in employees' ability to do their work.

For non-change specific themes, the most dominant theme was *training*. Having basic training at the beginning of the implementation was mentioned in most responses. In addition to

this, follow up or refresher training was also thought of a way that helped create self-efficacy. One participant mentioned that they would have liked to try the system before training. Another dominant theme was that the system was easy to use with several citing their existing self-efficacy with the Internet as being transferable to SharePoint. *Technical issues* regarding the speed of access to the system were somewhat dominant negative appraisals of the change. One participant felt the old system was faster and because of this his or her job was more challenging while using SharePoint. Another wrote it is difficult to use a tool that is supposed to make work more efficient which actually makes working slower. One individual felt that there wasn't sufficient time or resources committed to the transition and because of this, he or she did not make much of a change. Less dominant themes included *consultation on how this could be applied to a current problem, having a positive appraisal from a colleague and making a job easier*.

5.1.2.4 - Management Support

Management support relates to the degree that key organizational leaders are supporting the change (through words and actions). Participants were asked about incidents that changed their feeling that there was some support for this change from upper management. For change specific themes which arose from this question, *access to information* was the most dominant theme, though not as much as the previous questions. *Communication* was a close second. Many respondents spoke of management having information on the system or that management was communicating with this system. This was also related to *creating a sense of corporate community* by corporate management communicating with the system. When corporate management would share information through this system, it made them seem more connected to the local operation.

For non-change specific themes, *management usage* was the most dominant theme. Not only does this mean seeing management using the system, but several participants commented on how the general manager swears by the system. Another participant wrote that the general manager was the highest user of the system. Related to this is *management endorsement* of the system, always talking about the system and integrating it in to workflows. Management involvement in the implementation process helped show management support, especially when the general manager was involved in the implementation strategy. The negative appraisals here were again due to *technical issues* either relating to the speed of access or other problems which had yet to be worked out. On one of the same negative appraisals of the system for *technical issues*, the response by a manager did show that management supported the system. This particular manager acknowledged the problem and said that the new and old system would run in parallel until this technical issue was resolved.

5.1.2.5 - Personal Benefit

Personal benefit illustrates the intrinsic and extrinsic benefits of change for those involved. Participants were asked to recall an incident that led them to believe that there was some personal value or benefit to making this change. Not surprisingly, the most dominant change specific personal benefit was seen to be *access to information*. Most individuals wrote about how beneficial it was to be able to access any information from anywhere. One individual wrote how the system allowed for more specific search queries when seeking information. *Communication* was another dominant theme for the variety of media that can be shared and the extensive reach between the different sites. For these same reasons *collaboration* and *creating a sense of community* came up in several responses.

For non-change specific themes the most dominant was *making the job easier*. This was not followed in magnitude by any other non-change specific theme and was accomplished by either making a task more efficient, effective or eliminating some tasks altogether. Another response was about how easy the system was to use. A negative appraisal came from someone using AutoCAD file formats and linked spreadsheets which were not easily handled by SharePoint.

5.1.2.6 - Negative Individual

One of the respondents had something negative to say on each of his or her responses. Although some of the responses didn't really seem to address the question being asked, this feedback helps to illustrate that not everyone experiences change the same way.

For the discrepancy question, the individual wrote that the system was not being used at other sites. For the appropriateness question, the response was that the system will only work if it is used. For the self-efficacy question, the response was that the system was forced on him or her, but that it was easy to use. The response for the management support question detailed the lack of acknowledgement of the system by the individual's vice-president and that there was no incentive to use the system. The personal benefit response was also about the lack of incentive to use the system. Although this individual did not directly answer the questions, the voicing of these concerns raises some interesting points about employee perceptions of change.

5.2 - Study 2

5.2.1 - Longitudinal.

Means, standard deviations, correlations, and reliabilities are reported in Table 14, which were calculated using pairwise deletion. These are calculated by the difference between Time 1 and Time 2 from Site B data.

Table 14: Longitudinal - Correlations, Descriptive Statistics and Reliabilities ^a

	M	SD	1	2	3	4	5	6	7
1. Age	6.65	2.40	<i>na</i>						
2. Tenure	3.63	1.63	.53**	<i>na</i>					
3. Education	5.31	1.64	-.42**	-	<i>na</i>				
4. Change Communication	-2.43	17.46	-.08	-.03	-.06	(.94)			
5. Trust	0.39	16.39	-.14	.01	.08	-.02	(.95)		
6. Readiness for Change	-1.61	13.39	.33**	.23	-.15	.09	.18	(.90)	
7. Change Commitment	-1.49	17.46	.21	.11	-.22	.27**	.10	.09	(.92)

** p < .01.
 Pairwise deletion used N = 53 – 57
^aVariables are the change between Time 1 and Time 2

Hypotheses were tested with linear regression, using listwise deletion. The analyses included age, tenure and education as control variables. Variables at Time 1 and Time 2 were moderately to highly correlated ($.53 < r < .74, p < .001$) and the means of the scores were not significantly different ($t < .10, ns$). A comparison of variables is in Table 15.

	<i>N</i>	<i>r</i>	<i>p</i>	$\Delta\bar{x}$	<i>t</i>	<i>p</i>
Organizational Trust	58	.74	<.001	-.02	-.18	.86
Perc'd Qual. of Communication	53	.74	<.001	.14	.95	.35
Readiness for Change	57	.57	<.001	.08	.91	.37
Commitment to Change	56	.53	<.001	.09	.71	.48

A linear regression was done to test for the hypothesized relation between trust and readiness for change. The results indicate no significant relationship ($\beta = .22$, $\Delta R^2 = .05$, $F(1, 51) = 3.00$, $p = .09$), therefore Hypothesis 1 is not supported. The results of the regression are displayed in Table 16

		Dependent Variable
		Readiness for Change
		β
Step 1	Age	.29
	Tenure	.10
	Education	.02
R^2		.12
Step 2	Age	.32
	Tenure	.08
	Education	.01
	Trust	.23
ΔR^2		.05
* $p < .05$		** $p < .01$
		*** $p < .001$

There was no significant relation between change communication and readiness for change ($\beta = .12$, $\Delta R^2 = .01$, $F(1, 47) = .74$, $p = .39$), therefore Hypothesis 2 is not supported. The results of the regression are displayed in Table 17.

Table 17: Results of Regression Analysis: Study 2 - Longitudinal Hypothesis 2

		Dependent Variable
		Readiness for Change
		β
Step 1	Age	.31
	Tenure	.09
	Education	.02
	R^2	.12
Step 2	Age	.32
	Tenure	.08
	Education	.03
	Change Communication	.12
	ΔR^2	.01

* $p < .05$ ** $p < .01$ *** $p < .001$

Building on the results from Hypothesis 1, adding perceived quality of change communication to the model to not create a significant relation ($\beta = .13, p = .3$; Sobel = $-0.25, p = .80$), so Hypothesis 3 is not supported. The results of the regression are displayed in Table 18.

Table 18: Results of Regression Analysis: Study 2 - Longitudinal Hypothesis 3

		Dependent Variable
		Readiness for Change
		β
Step 1	Age	.31
	Tenure	.09
	Education	.02
R^2		.12
Step 2	Age	.36
	Tenure	.05
	Education	.00
	Trust	.38**
ΔR^2		.14**
Step 3	Age	.39
	Tenure	.04
	Education	.01
	Trust	.39**
	Change Communication	.13
ΔR^2		.02
* $p < .05$		** $p < .01$
		*** $p < .001$

Based on feedback from one of the examiners of the thesis proposal, post-hoc analysis was conducted to determine if communication moderated the association between trust and readiness for change. Perceived Quality of change communication and trust in organization were not centered before calculating the interaction and performing the regression, because they were already expressed in terms of a percentage. The results were not significant ($\beta = -.08$, $\Delta R^2 = .01$, $F(1, 44) = .43$, $p = .52$) indicating that there is no interaction effect. The results of the regression are displayed in Table 19.

Table 19: Results of Regression Analysis: Study 2 - Longitudinal Interaction

		Dependent Variable
		Readiness for Change
		β
Step 1	Age	.31
	Tenure	.09
	Education	.02
R^2		.12
Step 2	Age	.39
	Tenure	.04
	Education	.01
	Trust	.39**
	Communication	.13
ΔR^2		.16**
Step 3	Age	.38
	Tenure	.04
	Education	.01
	Trust	.38**
	Communication	.12
	Interaction	-.08
ΔR^2		.01
* $p < .05$		** $p < .01$
		*** $p < .001$

There was also no significant relation between readiness for change and change commitment ($\beta = .12$, $\Delta R^2 = .01$, $F(1, 47) = .74$, $p = .39$), therefore Hypothesis 4 is not supported. The results of the regression are displayed in Table 20.

Table 20: Results of Regression Analysis: Study 2 - Longitudinal Hypothesis 4

		Dependent Variable
		Change Commitment
		β
Step 1	Age	.14
	Tenure	-.01
	Education	-.16
R^2		.06
Step 2	Age	.13
	Tenure	-.01
	Education	.17
	Readiness for Change	.02
ΔR^2		.00
	* $p < .05$	** $p < .01$ *** $p < .001$

Additional analyses were conducted to test for mediation by readiness for change between the antecedents (trust and change communication) and change commitment. With change commitment as the dependent variable and perceived quality of change communication as the independent variable, a significant association was found ($\beta = .28$, $\Delta R^2 = .08$, $F(1, 46) = 4.26$, $p < .05$). Although there was no particular hypothesis, for this association, the results indicate that communication about the change influences commitment to the change. As reported earlier, the perceived quality of change communication was not associated with readiness for change ($\beta = .12$, $\Delta R^2 = .01$, $F(1, 47) = .74$, $p = .39$). The lack of support for Hypothesis 2 does not necessarily rule out mediation for Hypothesis 5 (MacKinnon et al., 2002), so this analysis was completed. When readiness for change was included in the analysis, the results are still not significant ($\beta = .05$, $p = .73$; Sobel = .36, $p = .72$). This finding indicates that, in the longitudinal context, readiness for change does not mediate the association between perceived quality of

communication and change commitment. Hypothesis 5 is not supported. The results of the regression are displayed in Table 21.

Table 21: Results of Regression Analysis: Study 2 – Longitudinal Hypothesis 5		
		Dependent Variable
		Change Commitment
		β
Step 1	Age	.15
	Tenure	.00
	Education	-.17
R^2		.07
Step 2	Age	.20
	Tenure	-.02
	Education	-.14
	Change Communication	.28*
ΔR^2		.08*
Step 3	Age	.18
	Tenure	-.02
	Education	-.14
	Change Communication	.28
	Readiness for Change	.05
ΔR^2		.00
* $p < .05$		** $p < .01$
		*** $p < .001$

With change commitment as the dependent variable and trust in the organization as the independent variable, not significant association was found ($\beta = .14$, $\Delta R^2 = .02$, $F(1, 50) = .96$, $p = .33$). As reported earlier, trust in the organization was not associated with readiness for change ($\beta = .22$, $\Delta R^2 = .05$, $F(1, 51) = 3.00$, $p = .09$). When readiness for change was included in the analysis, the results are still not significant ($\beta = -.02$, $p = .91$; Sobel = $-.11$, $p = .91$). This finding indicates a lack of support for Hypothesis 6. The results of the regression are displayed in Table 22.

Table 22: Results of Regression Analysis: Study 2 – Longitudinal Hypothesis 6

		Dependent Variable
		Change Commitment
		β
Step 1	Age	.14
	Tenure	-.01
	Education	-.16
R^2		.06
Step 2	Age	.16
	Tenure	-.03
	Education	-.17
	Trust	.14
ΔR^2		.02
Step 3	Age	.17
	Tenure	-.03
	Education	-.17
	Trust	.14
	Readiness for Change	-.02
ΔR^2		.00
* $p < .05$		** $p < .01$
		*** $p < .001$

5.2.2 - Cross-Sectional.

In addition to the longitudinal analysis, cross-sectional analyses were conducted using independent variables from Time 1 and dependent variables from Time 2. Means, standard deviations, correlations, and reliabilities are reported in Table 23, all were calculated using pairwise deletion. These are calculated by using Time 1 as independent variables and Time 2 as dependent variables from Site B data.

Table 23: Site 2 – Cross-Sectional - Correlations, Descriptive Statistics and Reliabilities

	M	SD	1	2	3	4	5	6	7	8
1. Age	6.65	2.40	<i>na</i>							
2. Tenure	3.63	1.63	.53**	<i>na</i>						
3. Education	5.31	1.64	-.42**	-.42**	<i>na</i>					
4. Change Communication	4.09	1.37	.17	.04	.04	(.94)				
5. Trust	5.31	1.11	.10	-.23*	.05	.28*	(.95)			
6. Readiness for Change DV	4.40	.56	.07	.03	.01	.56**	.02	(.91)		
7. Readiness for Change IV	4.24	.77	.22	.07	-.10	.57**	.02	.57**	(.90)	
8. Change Commitment	5.46	.99	.41**	-.01	-.09	.51**	.21	.45**	.61**	(.92)

** p <.01, * p <.05
Pairwise deletion used N = 53 - 88

Hypotheses were tested with linear regression, using listwise deletion. The analyses included age, tenure and education as control variables. The model with effect sizes is shown in Figure 5.

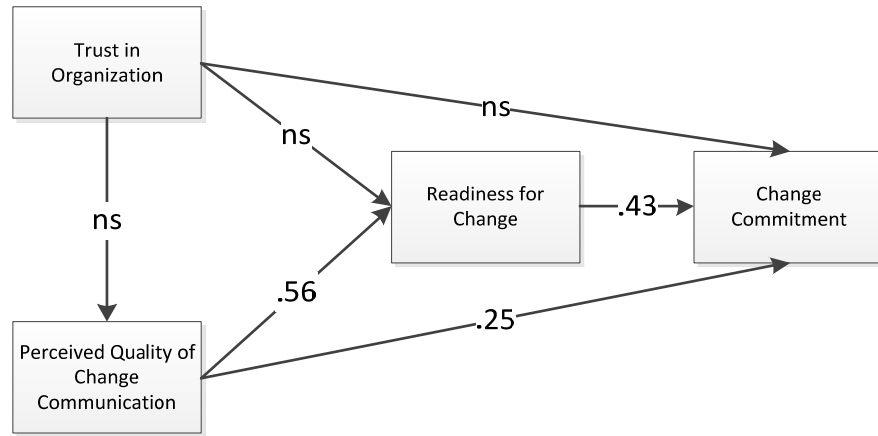


FIGURE 5 – Study 2 Relationships with effect sizes (β)

A linear regression was done to test for the hypothesized relation between trust and readiness for change. The results were not significant ($\beta = -.03$, $\Delta R^2 = .00$, $F(1, 51) = 0.04$, $p = .84$) and therefore Hypothesis 1 is not supported. The results of the regression are displayed in Table 24.

Table 24: Results of Regression Analysis: Study 2 – Cross-Sectional Hypothesis 1

		Dependent Variable
		Readiness for Change
		β
Step 1	Age	.24
	Tenure	-.04
	Education	.00
R^2		.05
Step 2	Age	.25
	Tenure	-.05
	Education	.00
	Trust	-.03
ΔR^2		.00
* $p < .05$		** $p < .01$
		*** $p < .001$

There was a positive significant relation between change communication and readiness for change ($\beta = .56$, $\Delta R^2 = .30$, $F(1, 48) = 22.45$, $p < .001$) supporting Hypothesis 2. The results of the regression are displayed in Table 25.

Table 25: Results of Regression Analysis: Study 2 – Cross-Sectional Hypothesis 2

		Dependent Variable
		Readiness for Change
		β
Step 1	Age	.24
	Tenure	-.04
	Education	.00
R^2		.05
Step 2	Age	.11
	Tenure	-.04
	Education	-.09
	Change Communication	.56***
ΔR^2		.30***
* $p < .05$		** $p < .01$
		*** $p < .001$

The association between trust in the organization and perceived quality of change communication was not significant ($\beta = .17, \Delta R^2 = .02, F(1, 48) = 1.26, p > .05$). As a result, there is no need to conduct a mediation test for perceived quality of change communication. Hypothesis 3 is not supported. The results of the regression are displayed in Table 26.

Table 26: Results of Regression Analysis: Study 2 – Cross-Sectional Hypothesis 3		
		Dependent Variable
		Readiness for Change
		β
Step 1	Age	.24
	Tenure	-.04
	Education	.00
	R^2	.23
Step 2	Age	.27
	Tenure	-.06
	Education	.07
	Trust	-.07
	ΔR^2	.00
Step 3	Age	.17
	Tenure	-.10
	Education	-.07
	Trust	-.17
	Change Communication	.59***
	ΔR^2	.32***

* $p < .05$ ** $p < .01$ *** $p < .001$

Based on feedback from one of the examiners of the thesis proposal, post-hoc analysis was conducted to determine if communication moderated the association between trust and readiness for change. Perceived Quality of change communication and trust in organization were centered before calculating the interaction and performing the regression (Aiken & West, 1991). The results were significant ($\beta = .41, \Delta R^2 = .10, F(1, 46) = 9.07, p < .01$) indicating that there is

an interaction effect in this sample. These results show that the effect of trust in the organization differs as a function of perceived quality of change communication. The results of the regression are displayed in Table 27 are graphed in Figure 6..

Table 27: Results of Regression Analysis: Study 2 – Cross-Sectional Interaction			
		Dependent Variable	
		Readiness for Change	
		β	
Step 1	Age	.24	
	Tenure	-.04	
	Education	.00	
R^2		.23	
Step 2	Age	.17	
	Tenure	-.10	
	Education	-.07	
	Trust ¹	-.16	
	Communication ¹	.58***	
ΔR^2		.33***	
Step 3	Age	.13	
	Tenure	-.02	
	Education	-.18	
	Trust ¹	.09	
	Communication ¹	.53***	
	Interaction	.41**	
ΔR^2		.10**	
¹ Variables are Centred	* $p < .05$	** $p < .01$	*** $p < .001$

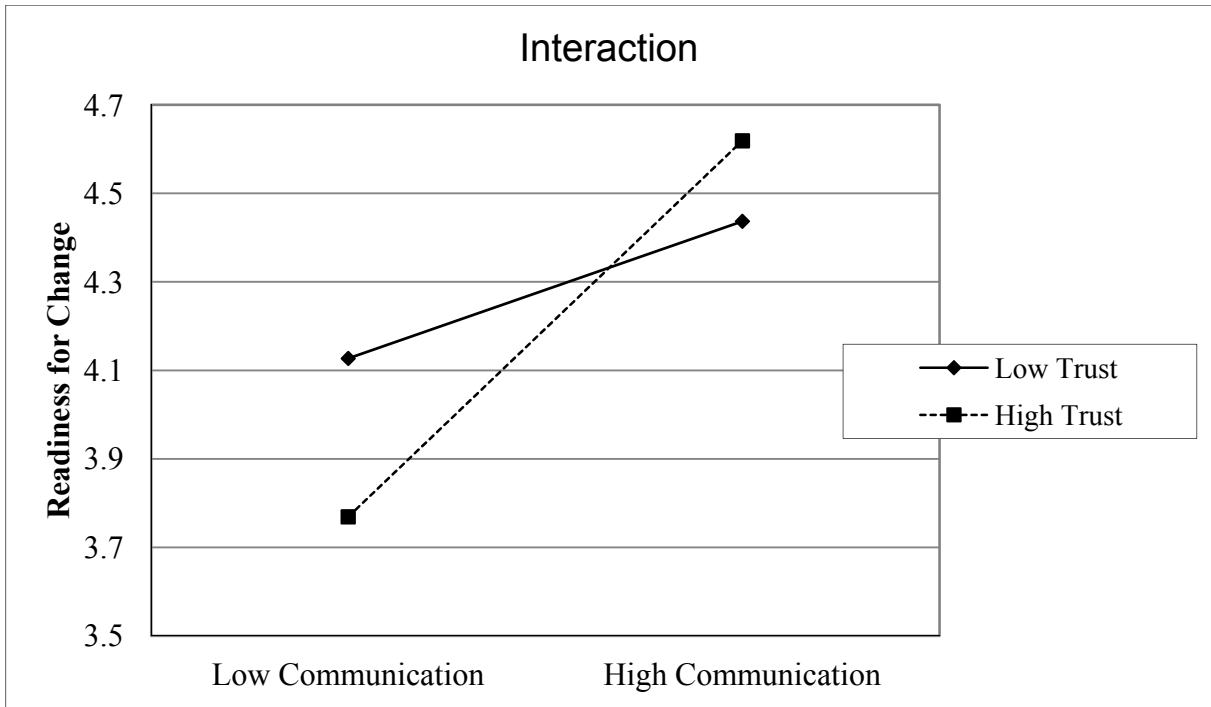


FIGURE 6: Interaction of perceived quality of communication and perceived organizational trust on readiness for change.

Readiness for and change and change commitment were significantly and positively related ($\beta = .43, \Delta R^2 = .17, F(1, 50) = 14.55$ and $p < .001$), supporting Hypothesis 4. The results of the regression are displayed in Table 28.

Table 28: Results of Regression Analysis: Study 2 – Cross-Sectional Hypothesis 4

		Dependent Variable
		Change Commitment
		β
Step 1	Age	.58***
	Tenure	-.27
	Education	.09
	R^2	.23**
Step 2	Age	.52***
	Tenure	-.14
	Education	.07
	Readiness for Change	.43***
	ΔR^2	.17***
	* $p < .05$	** $p < .01$ *** $p < .001$

Additional analyses were conducted to test for mediation by readiness for change between the antecedents (trust and change communication) and change commitment. With change commitment as the dependent variable and perceived quality of change communication as the independent variable, a significant association was found ($\beta = .41$, $\Delta R^2 = .16$, $F(1, 47) = 12.38$ and $p < .01$). As reported earlier, the perceived quality of change communication was associated with readiness for change ($\beta = .56$, $\Delta R^2 = .30$, $F(1, 48) = 22.45$, $p < .001$). When readiness for change was included in the analysis, effect size for perceived quality of change communication is reduced ($\beta = .253$, $p = .05$; Sobel = 2.24, $p < .05$), indicating partial mediation. This finding indicates support for Hypothesis 5. The results of the regression are displayed in Table 29.

Table 29: Results of Regression Analysis: Study 2 – Cross-Sectional Hypothesis 5

		Dependent Variable
		Change Commitment
		β
Step 1	Age	.60***
	Tenure	-.30**
	Education	.06
R^2		.25**
Step 2	Age	.45**
	Tenure	-.26
	Education	*.03
	Change Communication	.41**
ΔR^2		.16**
Step 3	Age	.44**
	Tenure	-.16
	Education	-.01
	Change Communication	.25*
	Readiness for Change	.33*
ΔR^2		.07*
* $p < .05$		** $p < .01$ *** $p < .001$

With change commitment as the dependent variable and trust in the organization as the independent variable, no significant association was found ($\beta = .09$, $\Delta R^2 = .1$, $F(1, 50) = .43$ and $p = .52$). As reported earlier, trust in the organization was not associated with readiness for change ($\beta = -.03$, $\Delta R^2 = .00$, $F(1, 51) = 0.04$, $p = .84$). When readiness for change was included in the analysis, effect size for perceived quality of change communication is reduced, but still not significant ($\beta = .253$, $p = .53$; Sobel = 2.24, $p < .05$). This finding indicates that there is no support for Hypothesis 6. The results of the regression are displayed in Table 30.

Table 30: Results of Regression Analysis: Study 2 – Cross-Sectional Hypothesis 6

		Dependent Variable
		Change Commitment
		β
Step 1	Age	.58***
	Tenure	-.27
	Education	.09
R^2		.23**
Step 2	Age	.55**
	Tenure	-.25
	Education	.08
	Trust	.09
ΔR^2		.01
Step 3	Age	.49**
	Tenure	-.12
	Education	.06
	Trust	.07
	Readiness for Change	.43***
ΔR^2		.17***
* $p < .05$		** $p < .01$
		*** $p < .001$

5.3 - Study 1 & Study 2 Comparison

The main variables of interest from Study 1 and Study 2, trust in the organization, perceived quality of change communication, readiness for change and change commitment were compared in an independent samples t test. These results of the independent sample test and group statistics are listed in Table 31.

The variables from Study 2 were taken from Time 1 to maximize the number of participants and because there was no significant difference between Time 1 and Time 2.

The means were not significantly different for trust in the organization between Study 1 (M = 5.31, SD = 1.11) and Study 2 (M = 5.55, SD = 1.00); $t(172) = 1.51, p = .13$. Similarly, the

means for change commitment not significantly between Study 1 (M = 5.37, SD = 1.2) and Study 2 (M = 5.66, SD = 1.00); $t(169) = 1.12, p = .09$.

Table 31: Study 1 and Study 2 Variable Comparison

	Study 1 Mean	Study 2 Mean	Mean Difference	<i>t</i>	<i>df</i>	<i>p</i>
Change Communication	4.90	4.09	.81	.42	162	< .001
Trust	5.55	5.31	.24	.29	172	> .05
Readiness for Change	5.46	4.40	1.07	10.86	170	< .01
Change Commitment	5.66	5.37	.29	1.72	169	> .05

On the other hand, the means for the perceived quality of change communication was significantly different between Study 1 (M = 4.09, SD = 1.39) and Study 2 (M = 4.90, SD = 1.08) for change communication; $t(162) = 4.19, p < .001$. Results were also significant between Study 1 (M = 4.39, SD = .55) and Study 2 (M = 5.46, SD = .72) for readiness for change; $t(170) = 10.86, p < .001$.

6 - Discussion

There were several goals in this thesis: to investigate how trust in the organization and perceived quality of change communication explain readiness for change, to investigate how readiness for change explains change commitment and to see how these develop over time. This uniquely contributes to literature by examining the same change initiative within the same organization, at two different sites that are at different stages of implementation. Although the longitudinal study failed to demonstrate how change develops, some conclusions can be drawn comparing the differences between the two sites.

The findings highlight the importance of change communication in creating readiness for change and the strong effect readiness for change has on change commitment, which is consistent with previous studies (Miller, Johnson & Grau, 1994; Armenakis & Harris, 2002; Bommer, Rich & Rubin, 2005; Bouckennooghe, 2008). The results also suggest that there is a complicated relationship between trust in the organization and readiness for change, which varies throughout the change process. The finding between trust and readiness for change specifically contributes to the literature by providing a potential explanation for previously conflicting results (Schneider, Brief & Guzzo, 1996; Gomez & Rosen, 2001; Bouckennooghe, 2008).

The results of Study 1 and Study 2 are summarized in Table 32 by each Hypothesis along with a comparison of the cross-sectional results from both studies. Findings are discussed in terms of consistency and then in terms of inconsistency. An interpretation of the lack of non-significant findings in the longitudinal data for site 2 and the qualitative negative appraisals of the change are also presented.

Table 32: Comparison of Results from Study 1 and Study 2

Hypothesis	Study 1	Study 2 Longitudinal	Study 2 Cross- Sectional	Comparison of Cross- Sectional results
1	Supported	Not supported	Not supported	Inconsistent
2	Supported	Not supported	Supported	Consistent
3	Supported	Not supported	Not supported	Inconsistent
4	Supported	Not supported	Supported	Consistent
5	Supported	Not supported	Supported	Consistent
6	Supported	Not supported	Not supported	Inconsistent
Interaction	No interaction	No interaction	Significant	Inconsistent

6.1 - Consistent

Hypothesis 2 found support in both Study 1 and Study 2, highlighting the importance of perceived quality change communication in creating readiness for change. Consistent with the concept that readiness for change is encapsulated within the change message (Armenakis et al., 2000), perceived quality change communication should be treated as important way to facilitate readiness for change. Revisiting some of the most basic communication theory by Shannon (1948) and Barnlund (1970), communication is a two way process where the sender transmits the message and the sender interprets this message returning feedback. As previously mentioned, communication has been associated with providing information, participatory involvement or employee engagement (Cai & Fink, 2009), each of which could arguably be considered to be part of the communication process.

Actions by management also send a message about the change. Management usage and training seemed to be an important part of perceived quality of change communication.

Communication includes public cues, private cues, non-verbal behavioural cues and verbal cues

(Barnlund, 1970). When management actually used SharePoint and provided training, a message of support was sent. The implication for practitioners is that to create change, communicate effectively through words and actions. It is important for practitioners to keep the definition of communication in mind, that communication is a two way process that occurs verbally and non-verbally. The unique contribution from this work is that it confirms the importance of perceived quality of change communication with readiness for change, while mitigating the risk of mono-method bias, which some previous work may have been subjected to (Bouckennooghe, 2008). For research, further study might be done on what factors lead one individual to perceive quality of change communication differently than another.

Hypothesis 4 found support in both Study 1 and Study 2, highlighting the relationship between readiness for change and change commitment. Change commitment was selected to test the importance of readiness for change in actually changing behavioural, because intention is strongly related to behaviour (Ajzen & Fishbein, 1974). This provides support to the importance of readiness for change in modifying actual behaviour. This finding also provides support for the idea that change intention is shaped by the affective and cognitive dimensions of readiness for change (Bouckennooghe, 2008).

Hypothesis 5 also found support in both studies, which describes the nature of the relationship of change communication and change commitment. Previous work has shown that there is a positive association between change communication and change commitment (Conway & Monks, 2008), but having readiness for change as a mediator helps to explain this association.

The strongest qualitative themes that seemed to relate to readiness for change and change commitment were from individuals seeing how SharePoint solves a problem or makes their job

easier. Once someone could see the appropriateness or personal benefit of the change, previous experience in similar platforms is what really seemed to get individuals committed to this change into action. One individual was supportive of the system without even using it after seeing the initial benefit because he or she was confident based on experience with a similar interface. For those who were not as comfortable with the system but did see the appropriateness and benefit, providing initial and follow up training helped get them committed to the change.

A contribution here is that the concept is tested with the Holt et al. (2007) readiness for change scale, which has is reliable, valid and more widely recognized. The strong effect size in both Study 1 and Study 2 does suggest some commonality between readiness for change and change commitment, raising the concern that they might be part of the same construct, which Bouckenoghe (2008) suggests. This conflicts with the idea that change commitment is unique from readiness for change (Fedor et al., 2006) and the difference between the effect sizes (.77 for Site A and .43 for Site B) raises further uncertainty.

Future research should investigate the commonalities between readiness for change and change commitment. Additional research on readiness for change could also look at actual behaviour based on previous readiness for change, rather than using intention as an indicator. Practitioners can benefit from this information by focusing on the importance of readiness for change during a change initiative. Doing whatever possible to create it is important, but also having a tool such as the Holt et al. (2007) readiness for change scale, allows for diagnostic measures and subsequent interventions during the change process.

6.2 - Inconsistent

All hypotheses that involved trust in the organization as a variable were inconsistent with the cross-sectional results between Study 1 and Study 2. The results for Hypothesis 1, Hypothesis 3 and Hypothesis 6 were inconsistent between the studies: in Study 1 they were all supported, while in Study 2 they were not supported. Although the lack of support for Hypothesis 1 does not necessarily rule out mediation for Hypothesis 3 and Hypothesis 6 (MacKinnon et al., 2002), it seems like this is the case in Study 2. The results from Study 1 would seem to support that trust is important during an organizational change (Colquitt & Salam, 2009), but the results for Study 2 seem to contradict it. Some previous studies have found support for a relationship between trust and readiness for change (Schneider et al., 1996; Gomez & Rosen, 2001), while others have not (Bouckenooghe, 2008). Others have looked at trust and commitment to change research has shown that there is a positive association between trust in the organization and change commitment (Michaelis et al., 2009). Taken together, these other studies and the current findings suggest that the contextual factors surrounding the change may have an influence on the importance of trust. Future research should explore potential moderators of trust in the organization.

The stronger direct effect of trust in Study 1 is also reflected in the qualitative data, there was strong mention of how there was a top manager using and endorsing the system extensively. Corporate management also used the system with work related information that was relevant to the employees. The employees seemed to have confidence in the change because a trusted figure (the general manager for the site) was supporting the system. One incident that indicates how trust was maintained involved an employee complaining of a technical issue to his or her direct manager. This manager maintained the integrity component of trust (Mayer, Davis &

Schoorman, 1995) by acknowledging the issue and replying that the SharePoint team were working on resolving it, while allowing the old system to operate in parallel until the issue was resolved.

These contextual factors may have had an influence on the interaction effect of trust and communication in predicting readiness for change. In contrast to Hypothesis 1, Hypothesis 3 and Hypothesis 6, the interaction effect was not supported in Study 1, but was in Study 2. The interaction present in Study 2 (shown in Figure 6), indicates that the effect of trust in the organization differs as a function of perceived quality of change communication. Although the non-significant result in Study 1 may be due to sample size and the fact that it is particularly difficult to find interaction effects in field studies due to restriction of range in the study variables (McClelland & Judd, 1993), these results may also indicate that the differences between the two sites may have influenced the importance of organizational trust. A factor that might be contributing to the interaction being present at Site B, but not at Site A is the possibility that management at Site B has not started using or endorsing the change. Unfortunately qualitative data was not collected for Site B, so this information is not available.

A surprising result was found in the interaction at Site B. Recall that trust is defined as “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party” (Mayer et al., 1995, p. 712). Based on this definition, it would be reasonable to expect that those with high trust in the organization would be more ready for change than those with low trust in the organization, but these results suggest otherwise. When perceived quality of change communication is high, readiness for change is higher for those with high trust, than with low trust. The surprising result is that when perceived

quality of change communication is low, readiness for change is lower for those with high trust than with low trust. This seems contrary to the idea that when followers do not trust their leader, they will react with scepticism when a leader communicates, monitoring the leader's actions and coming up with alternative plans in case events do not occur as they are supposed to (Mayer & Gavin, 2005). One potential interpretation of this is that when an individual has a high level of trust in the organization, an expectation arises that if the change is important or if it put the employees in any sort of vulnerability, management would have said more about it.

For practice, this finding again highlights the importance of high quality change communication, regardless of other factors. Underestimating the importance of communication, by depending on employee trust for example, might result in a lack of readiness for change. Future research should be done to confirm this interaction and to investigate the factors contributing to it.

The question now arises as to why there are inconsistencies between the two studies. Putting methodological reasons aside, such as the small sample size or Site A recalling a past experience, this was the same change done at two sites of the same company, so it would not be unreasonable to see the same results; however this was only partially the case. The averages for Trust in the organization were not significantly different from Site A and Site B, which may also be related to the fact that it is the same organization so that perceptions of trust may be somewhat consistent. Change commitment was also not significantly different between the two sites. Perceived quality of change communication and readiness for change were the two significantly different measures between the two sites.

The most obvious difference between the two sites is that they are at different stages of the change process. Within Armenakis, Harris and Field's (2000) institutionalizing change model, Site A is in the institutionalization stage, while Site B is only at the readiness stage. The inconsistencies between the study results suggest that trust plays a different role as the change process develops. During the initial stages of the change it would appear that trust in the organization does not play a role in readiness for change, but near the institutionalization stage it appears that it does. This suggests trust in the organization becomes increasingly important as the change develops. This difference might help to explain some of the inconsistent results between trust and readiness for change in previous studies (Schneider et al., 1996; Gomez & Rosen, 2001; Bouckenooghe, 2008). This may also be the result of management at Site B not using or endorsing the change, although whether this is the case or not is unclear. Future research should seek to confirm this seemingly evolving role of trust throughout the change process and why this is the case, while tracking management support of the change.

6.3 - Longitudinal

The original purpose of approaching this study longitudinally was to help understand how this phenomenon develops over time, answering the call of several authors who point to the lack of such a design (Allen et al., 2007; Bouckenooghe, 2008; Madsen et al., 2005). Unfortunately, none of the hypotheses found support when being approached longitudinally, which is likely due to a variety of factors (see Limitations section). Given that there was no significant difference between the means between Time 1 and Time 2, non-significant results were to be expected. The only significant result to come out of any of the longitudinal analysis was that the change in perceived quality of change communication is positively related to change commitment.

For practice, this finding does highlight the importance of change communication during an organizational change and how to approach a change initiative lacking commitment from others. It is important to emphasize that the construct is quality, not quantity of change communication. One item on this scale concerns the degree to which the official communication provided as much information as possible. Recalling that Shannon's (1948) and Barnlund's (1970) work on communication emphasizes an interaction between two parties and not just a one way dump of information. Future research might concern what the optimum amount depth of information creates an optimum level of perceived quality of change communication. These implications should be taken cautiously for the same probable reasons that none of the hypotheses has significant results.

One of the problems experienced with this longitudinal study was the limited time that elapsed between Time 1 and Time 2, which was only a period of three weeks. This was partially due to time restrictions placed on conducting the study by the organization. Although the change initiatives had started to take shape between Time 1 and Time 2, implementation was behind schedule which may have restricted the degree of change between data collections. Future studies following this design should strive to time the surveys based on implementation milestones instead of an arbitrarily set period.

6.4 - Negative Appraisals

As part of any change there are some negative appraisals, even in some of the supportive individuals. The most common negative appraisals that came from the qualitative data were related to the speed of access to the system. Based on comments, this is due to the internet connection at the office, but is a serious threat to the usage of the system. Many individuals who made this complaint felt that it was easier to use an old system that was faster, although they did

mention SharePoint was sufficiently fast when accessed from home. Others had issues with the way SharePoint matched their workflow. Some certain file types don't work well in SharePoint, while others felt their file structure was just too complex.

Although these issues are somewhat specific to the SharePoint system, other implementation barriers should be expected in other change implementations and should be dealt with accordingly. Ignoring these problems could lead to a failed change effort. Acknowledging these problems is a start to overcome them too. One particular manager acknowledged one of the problems brought up by a subordinate and worked out a short term resolution while the issue was resolved at a higher level.

Despite the success of a change effort, there will always be those who experience the process negatively. The one individual who had something negative to say about every open ended question is certainly a good example. This individual does admit that he or she is using the system because it was forced into usage, but would like to go back to old behaviour given the chance. This goes to show that not everyone can be made happy with a change.

6.5 - Limitations

One obvious limitation of the current research is that data is being collected within a single organization, which might lead to overly specific conclusions about process and context factors, therefore potentially constraining the generalizability of the results. This research does present some advantage over studying multiple organizations. The same change initiative was being studied within two sites of the same organization, one of which was successful while the other was still in progress. It would be very difficult to find such a unique perspective when looking at different organizations.

Although data was collected twice for Site B, at Site A it was collected cross-sectionally and might therefore be subject to mono-method bias. Some techniques integrated into this research method to mitigate this were protection of respondent anonymity, reduction of evaluation apprehension, and reverse-coded questions. Another limitation was the time elapsed between data collection at Site B. Due to the timeline requirements for this study, as set out by the organization, a period of three weeks elapsed between surveys. Although there was interest in this study very early on, it was very challenging getting a manager committed to a study. The organization required that the study be completed by a certain date and this reduced the amount of time that could elapse between surveys. More ideally, the survey would be issued to participants before a change intervention takes place, several times during and afterwards. This would unfortunately make the data collection process much longer, so was not feasible.

In any tests involving change commitment, the relationship between readiness for change and behaviour was being explored. This was done to accommodate time restrictions, as previously mentioned. Although the relationship between intention and behaviour is established (Ajzen & Fishbein, 1974), much better results would likely come out of observing actual behavior instead of intentions.

Due to the fact that the change has already occurred at Site A, the survey was asking the participants to recall past experiences. As a result, measurement error may have been introduced because negative emotions are difficult to recall if the final outcome is positive (Levine & Safer, 2002) and as time passes (Menard, 2002). This risk was somewhat mitigated by providing introductory material to the respondent on the change situation and asking detailed questions (Fowler, 1998), although the differences between results hint that this effect may still be present.

The small sample size is also a limitation. Although the original study was aiming to examine the change at up to ten different sites currently implementing the system and Site A which had already completed the change, the organization's executive management limited the study to a single operation that was implementing the change and Site A. Future research would benefit from having more participants, from more sites within the organization.

This small sample size issue was likely magnified by the high drop-out rate. This drop-out rate can be attributed to the fact that approximately halfway through the data collection, Site B was evacuated due to an external event. There is very little a researcher can do to prevent such a problem, except resume study after operations resume; however this option was not available for this study. It should be noted that there were no significant differences in the Time 1 variable means those who participated only at Time 1 and those who completed the study.

7 - Conclusion

Organizational change in practice has a very poor success rate (Smith, 2002), illustrating a gap in knowledge. Readiness for change is thought to be a key factor in the success of organizational change (Schein, 1999), which is influenced by trust and communication (Armenakis & Bedeian, 1999). This thesis provided a unique contribution to literature, helping to close this knowledge gap.

A field study with conducted within two sites of an organization currently implementing a Microsoft SharePoint system. At one of the sites, where the implementation has been successful, a mixed methods approach was taken, gathering primarily quantitative data which was supplemented by some qualitative data. At the other site, where the implementation is still in progress, a purely quantitative approach was taken separating collection of independent and dependent variables.

Consistent with other research (Armenakis et al., 2000), change communication was found to be an important factor in facilitating readiness for change. This finding has practical significance in that communication should be considered critical in facilitating readiness for change. Underestimating its importance, by relying on a trust for example, may result in a lack of readiness for change.

Trust in the organization seems to have a more complex relationship with readiness for change. Previous research has had conflicting results when investigating this relationship (Schneider et al., 1996; Gomez & Rosen, 2001; Bouckennooghe, 2008) and the results between the two sites also produced conflicting findings. The results suggest that contextual factors play a role in the relationship between trust and readiness for change. A potential explanation for this is

that the two sites were at different stages of the change process. Although it is not directly demonstrated with this study, trust may have a complicated role that evolves throughout the change process.

At one of the two sites, an interaction between trust and communication was detected. The interesting result that came out of this was individuals with a high perceived trust in the organization and low perceived quality of change communication had a lower readiness for change than those with a low perceived trust and low perceived quality of change communication.

Readiness for change was also found to be very strongly related to change commitment. This link provides support to the importance of readiness for change as an indicator of actual behaviour. Although change commitment was a measure of intention, intentions have been firmly linked to actual behaviour (Ajzen & Fishbein, 1974) and it can be inferred that readiness for change is a predictor of behaviour. This finding is relevant because it may be easier to measure and intervene in a way that increases readiness for change rather than attempting to directly address commitment.

Future research should consider what factors lead individual to perceive quality of change communication differently than another. The commonality suggested by the strong effect size between readiness for change and change commitment should also be investigated. Trust in the organization should be studied throughout a change initiative to see how its role in readiness for change develops. This might explain the inconsistent results both within this study and other research (Schneider et al., 1996; Gomez & Rosen, 2001; Bouckenooghe, 2008).

8 - References

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9 - Appendix

9.1 - Survey instruments

9.1.1 - Quality of change communication.

The official information provided about the change:

1. Kept you informed throughout the change process, even after the official announcement.
2. Included information about changes to the organization's structure.
3. Addressed your personal concerns regarding the change.
4. Was accurate.
5. Gave as much information as possible.
6. Involved employees in the change process and decisions made.
7. Communicated the reasons for the change

9.1.2 - Organizational trust inventory.

1. My level of confidence that my supervisor:
 - i) Is technically competent at the critical elements of his or her job is
 - ii) Will make well thought out decisions about his or her jobs is
 - iii) Will follow through on assignments is
 - iv) Has an acceptable level of understanding of his or her job is
 - v) Will be able to do his or her job in an acceptable manner is
 - vi) To do the job without causing other problems is
 - vii) Will think through what he or she is doing on the job is

2. When my supervisor tells me something, my level of confidence that I can rely on what they tell me is
3. My level of confidence that is organization will treat me fairly is
4. The level of trust between supervisors and workers in this organization is
5. The level of trust among the people I work with on a regular basis is
6. The degree to which we can depend on each other in this organization is

9.1.3 - Readiness for change.

Appropriateness

1. I think that the organization will benefit from this change (Organizational Valence)
2. There are legitimate reasons for us to make this change (Discrepancy)
3. It doesn't make much sense for us to initiate this change (Discrepancy)
4. The change will improve our organization's overall efficiency (Organizational Valence)
5. There are a number of rational reasons for this change to be made (Discrepancy)
6. In the long run, I feel it will be worthwhile for me if the organization adopts this change (Personal Valence)
7. This change makes my job easier (Personal Valence)
8. When this change is implemented, I don't believe there is anything for me to gain (Personal Valence)
9. The time we are spending on this change should be spent on something else (Discrepancy)

10. This change matches the priorities of our organization (Organizational Valence)

Management Support

1. Our senior leaders have encouraged all of us to embrace this change

(Supervisory Level Support)

2. Our organization's top decision makers have put all their support behind this change effort (Supervisory Level Support)

3. Every senior manager has stressed the importance of this change (Supervisory Level Support)

4. This organization's most senior leader is committed to this change (Supervisory Level Support)

Change Efficacy

1. I do not anticipate any problems adjusting to the work I will have when this change is adopted (Change Self Efficacy)

2. There are some tasks that will be required when we change that I don't think I can do well (Change Self Efficacy)

3. When we implement this change I feel I can handle it with ease (Change Self Efficacy)

4. My past experiences make me confident that I will be able to perform successfully after this change is made (Change Self Efficacy)

Personally Beneficial

1. I am worried I will lose some of my status in the organization when this change is implemented (Personal Valence)
2. This change will disrupt many of the personal relationships I have developed(Personal Valence)

My future in this job will be limited because of this change (Personal Valence)

9.1.4 - Change commitment.

1. I am doing whatever I can to help this change be successful
2. I am fully supportive of this change
3. I have tried (or intend to try) to convince others to support this change
4. I intend to fully support my supervisor during this change

9.2 - Surveys

9.2.1 - Study 1.

The follow are the questions which will be contained within the survey, with potential responses in brackets.

Department (Administration, Assay, Engineering, Geology, Human Resources, Maintenance, Management, Mill, Safety and Training, Underground, Warehouse, Other, Don't know, Choose not to answer)

Age (18-99 within 3 year intervals, Choose not to answer)

Tenure (0 - 60 within 3 year intervals, Choose not to answer)

Highest Level of Education Completed (Less than high school, Some high school, High school diploma/GED, Some college, College diploma, Some university, Undergraduate university degree, Master's university degree, Doctoral university degree, Choose not to answer)

Please answer the following questions recalling how you felt after what you feel was the first official announcement about using the new system.

The scale for the following items is: Strongly Disagree, Disagree, Somewhat disagree, Neutral, Somewhat agree, Agree, Strongly agree, Choose not to answer, Don't know

- I thought that the organization would benefit from this change
 - There were legitimate reasons for us to make this change
 - It didn't make much sense for us to initiate this change
 - I thought the change would improve our organization's overall efficiency
 - There were a number of rational reasons for this change to be made
 - In the long run, I felt it will be worthwhile for me if the organization adopted this change
 - This change would make my job easier
 - When this change was implemented, I didn't believe there is anything for me to gain
 - The time we were spending on this change should have been spent on something else
 - This change matched the priorities of our organization
 - Our senior leaders have encouraged all of us to embrace this

- Our organization's top decision makers have put all their support behind this change effort
- Every senior manager has stressed the importance of this change
- This organization's most senior leader is committed to this change
- I did not anticipate any problems adjusting to the work I will have when this change was adopted
- I thought there were some tasks that would be required when we changed that I didn't think I could do well
- When we implemented this change I felt I could handle it with ease
- My past experiences made me confident that I would be able to perform successfully after this change was made
- I was worried I would lose some of my status in the organization when this change was implemented
- I thought this change would disrupt many of the personal relationships I developed
- My future in this job will be limited because of this change

The scale for the following items is: Extremely low, Low, Somewhat low, Neutral, Somewhat high, High, Extremely high, Choose not to answer, Don't know

- My level of confidence that my supervisor is technically competent at the critical elements of his or her job is . . .
- My level of confidence that my supervisor will make well thought out decisions about his or her jobs is . . .
- My level of confidence that my supervisor will follow through on assignments is . . .

- My level of confidence that my supervisor has an acceptable level of understanding of his or her job is . . .
- My level of confidence that my supervisor will be able to do his or her job in an acceptable manner is . . .
- My level of confidence that my supervisor will do the job without causing other problems is . . .
- My level of confidence that my supervisor will think through what he or she is doing on the job is . . .
- When my supervisor tells me something, my level of confidence that I can rely on what they tell me is . . .
- My level of confidence that this organization will treat me fairly is . . .
- The level of trust between supervisors and workers in this organization is . . .
- The level of trust among the people I work with on a regular basis is . . .
- The degree to which we can depend on each other in this organization is . . .

The responses for the following items are: Strongly Disagree, Disagree, Somewhat disagree, Neutral, Somewhat agree, Agree, Strongly agree, Choose not to answer, Don't know

- The official information provided about the change kept you informed throughout the change process, even after the official announcement
- The official information provided about the change included information about changes to the organization's structure
- The official information provided about the change addressed your personal concerns regarding the change

- The official information provided about the change was accurate
- The official information provided about the change gave as much information as possible
- The official information provided about the change involved employees in the change process and decisions made
- The official information provided about the change communicated the reasons for the change
- I am doing whatever I can to help this change be successful
- I am fully supportive of this change
- I have tried to convince others to support this change
- I fully supported my supervisor during this change

Your perspective on a change can be modified by one or more specific incidents. Please answer the following questions recalling what you feel was a critical incident in changing your feelings towards the new system. Each of these questions are about specific feelings towards the change and do not need to be on the same event. Responses are not mandatory.

Please structure the responses by a brief overview of what lead up to the incident, what happened and what the outcomes were to you and others.

Recall an incident which changed your feeling that there was a problem that needed to be solved.

Recall an incident which changed your feeling that this proposed system was the solution to the problem.

Recall an incident which changed your feeling that you were capable of making the change and using the system.

Recall an incident which changed your feeling that there was some support for this change in upper management.

Recall an incident which changed your feeling that there was some personal value or benefit to making this change.

9.2.2 - Study 2.

The follow are the questions which will be contained within the surveys. Demographic data will only be collected at Time 1 with potential responses in brackets.

Department (Administration, Assay, Engineering, Geology, Human Resources, Maintenance, Management, Mill, Safety and Training, Underground, Warehouse, Other, Don't know, Choose not to answer)

Age (18-99 within 3 year intervals, Choose not to answer)

Tenure (0 – 60 within 3 year intervals, Choose not to answer)

Highest Level of Education Completed (Less than high school, Some high school, High school diploma/GED, Some college, College diploma, Some university, Undergraduate university degree, Master's university degree, Doctoral university degree, Choose not to answer)

The responses for the following items are: Strongly Disagree, Disagree, Somewhat disagree, Neutral, Somewhat agree, Agree, Strongly agree, Choose not to answer, Don't know

- I think that the organization will benefit from this There are legitimate reasons for us to make this change
- It doesn't make much sense for us to initiate this change
- The change will improve our organization's overall There are a number of rational reasons for this change to be made
- In the long run, I feel it will be worthwhile for me if the organization adopts this change
- This change makes my job easier
- When this change is implemented, I don't believe there is anything for me to gain
- The time we are spending on this change should be spent on something else
- This change matches the priorities of our organization
- Our senior leaders have encouraged all of us to embrace this
- Our organization's top decision makers have put all their support behind this change effort
- Every senior manager has stressed the importance of this change
- This organization's most senior leader is committed to this change
- I do not anticipate any problems adjusting to the work I will have when this change is adopted
- There are some tasks that will be required when we change that I don't think I can do well
- When we implement this change I feel I can handle it with ease

- My past experiences make me confident that I will be able to perform successfully after this change is made
- I am worried I will lose some of my status in the organization when this change is implemented
- This change will disrupt many of the personal relationships I have developed
- My future in this job will be limited because of this change

The scale for the following items is: Extremely low, Low, Somewhat low, Neutral, Somewhat high, High, Extremely high, Choose not to answer, Don't know

- My level of confidence that my supervisor is technically competent at the critical elements of his or her job is
- My level of confidence that my supervisor will make well thought out decisions about his or her jobs is
- My level of confidence that my supervisor will follow through on assignments is
- My level of confidence that my supervisor has an acceptable level of understanding of his or her job is
- My level of confidence that my supervisor will be able to do his or her job in an acceptable manner is
- My level of confidence that my supervisor will do the job without causing other problems is
- My level of confidence that my supervisor will think through what he or she is doing on the job is

- When my supervisor tells me something, my level of confidence that I can rely on what they tell me is
- My level of confidence that is organization will treat me fairly is
- The level of trust between supervisors and workers in this organization is
- The level of trust amount the people I work with on a regular basis
- The degree to which we can depend on each other in this organization is

The responses for the following items are: Strongly Disagree, Disagree, Somewhat disagree, Neutral, Somewhat agree, Agree, Strongly agree, Choose not to answer, Don't know

- The official information provided about the change kept you informed throughout the change process, even after the official announcement
- The official information provided about the change included information about changes to the organization's structure
- The official information provided about the change addressed your personal concerns regarding the change
- The official information provided about the change was accurate
- The official information provided about the change gave as much information as possible
- The official information provided about the change involved employees in the change process and decisions made
- The official information provided about the change communicated the reasons for the change
- I am doing whatever I can to help this change be successful

- I am fully supportive of this change
- I have tried (or intend to try) to convince others to support this change
- I intend to fully support my supervisor during this change

9.3 - Invitations

9.3.1 - Invitation to participate – Study 1.

Trust in Management, Quality of Change Communication and Readiness for Change

Readiness for change is a state where an individual is open and accepting to some sort of change in their life, such as quitting smoking or doing their job a new way. The purpose of this research is to investigate how your perspective of trust in the organization and quality of communication play in creating readiness for change.

Matthew Ranta is a graduate student at Lakehead University, in Thunder Bay, Ontario and as part of his program requirements is conducting a field study on this topic.

This message is an invitation to you as a potential participant in this survey. You are being contacted because you are listed as a user of the [Internal Branded SharePoint] system, currently being implemented at other sites. You will be asked to recall your feelings about [Internal Branded SharePoint] after what you feel was the first official announcement about the system. Discovering why you do or do not use the system is a goal of the research.

Your participation in the research is completely voluntary; you may choose to not answer any part of the study and can withdraw at any time. The option to decline to answer is available for each response.

If you chose to participate, you will be asked to complete a web based survey composed of approximately 55 questions. This should take 10 – 15 minutes of your time.

To protect your privacy, a third party company will assist in collecting the data. The link provided in this message contains a unique link, which is only known to yourself and this third

party company. When the data is provided to the researcher any identifying information, including this unique link, will be removed.

The data collected will then be analyzed by the research, presenting a summary of results for a thesis and potentially be used in future publications and presentations. Management within [Company] will also receive a summary of the results, but no individual responses will be made available. This report will also be made available to any employees interested in viewing the results. Again, no individual responses will be accessible to anyone outside the researcher. This data will be securely stored for 5 years in the Lakehead University Faculty of Business Office on Compact Disc or other suitable media.

Besides the goal of this research, this information will also provide the benefit to [Company] of why [Internal Branded SharePoint] is or is not being implemented successfully. This will also provide you an opportunity to submit anonymous feedback on your feelings towards the [Internal Branded SharePoint] implementation process.

Should you have any questions, please contact the researcher, Matthew Ranta, who can be reached at 807-472-4911 or mjranta@lakeheadu.ca. For further questions, you may also contact the supervisor, David Richards, who can be reached at 807-343-8386 or drichar1@lakeheadu.ca and The Research Ethics Board which can be reached at 807-343-8283.

9.3.2 - Invitation to participate – Study 2.

Trust in Management, Quality of Change Communication and Readiness for Change

Readiness for change is a state where an individual is open and accepting to some sort of change in their life, such as quitting smoking or doing their job a new way. The purpose of this research is to investigate how your perspective of trust in the organization and quality of communication play in creating readiness for change.

Matthew Ranta is a graduate student at Lakehead University, in Thunder Bay, Ontario and as part of his program requirements is conducting a field study on this topic.

This message is an invitation to you as a potential participant in this survey. You are being contacted because you are listed as a user of the [Internal Branded SharePoint] system, currently being implemented. Whether or not you actually use [Internal Branded SharePoint] is not a requirement for this study. Discovering why you do or do not use the system is a goal of the research.

Your participation in the research is completely voluntary; you may choose to not answer any part of the study and can withdraw at any time. The option to decline to answer is available for each response.

If you chose to participate, you will be asked to complete a web based survey composed of approximately 50 questions. Then, several weeks later, you will be asked to complete the survey again to see if your perspective has changed at all. The second survey will contain slightly fewer questions. Each survey should take 10 – 15 minutes of your time.

To protect your privacy, a third party company will assist in collecting the data. The link provided in this message contains a unique link, which is only known to yourself and this third party company. When the data is provided to the researcher any identifying information, including this unique link, will be removed.

The data collected will then be analyzed by the research, presenting a summary of results for a thesis and potentially be used in future publications and presentations. Management within [Company] will also receive a summary of the results, but no individual responses will be made available. This report will also be made available to any employees interested in viewing the results. Again, no individual responses will be accessible to anyone outside the researcher. This data will be securely stored for 5 years in the Lakehead University Faculty of Business Office on Compact Disc or other suitable media.

Besides the goal of this research, this information will also provide the benefit to [Company] of why [Internal Branded SharePoint] is or is not being implemented successfully. This will also provide you an opportunity to submit anonymous feedback on your feelings towards the [Internal Branded SharePoint] implementation process.

Should you have any questions, please contact the researcher, Matthew Ranta, who can be reached at 807-472-4911 or mjranta@lakeheadu.ca. For further questions, you may also contact the supervisor, David Richards, who can be reached at 807-343-8386 or drichar1@lakeheadu.ca and The Research Ethics Board which can be reached at 807-343-8283.

9.4 - Consent Agreement

By continuing beyond this screen, you agree to the following:

1. You agree to participate in the study.
2. You are 18 years of age or older.
3. You acknowledge that you have read and understand the Participant Information sent to you in the email inviting you to participate in this study.
4. You understand the potential risks and/or benefits of the study and what they are.
5. You are participating voluntarily, you may choose to not answer any question in the survey, and are aware that you can withdraw at any time
6. You understand that the data will be stored securely in the Lakehead University Faculty of Business Office for a period of five years.
7. You are aware that you may access the research findings through the report of aggregated results, which will be made available within the company.
8. You understand that you will not be identified in any publication or presentation of these research findings.

9.5 - Management Endorsement

9.5.1 - Management endorsement – Site A

Hello,

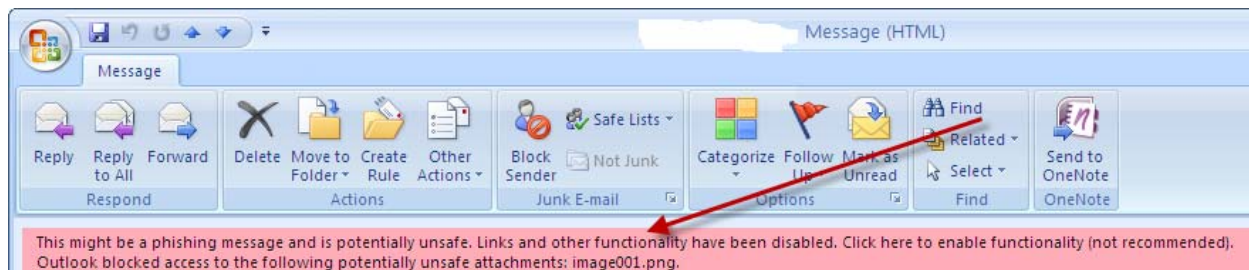
Some of you have received an invitation to participate in a survey regarding [Internal Branded SharePoint]. This survey is being conducted by Matthew Ranta, a graduate student at Lakehead University and employee at [Site Name], for his thesis.

All responses are kept anonymous and the survey is contracted to a third party company to ensure this. No one will be able to identify your response.

I have approved this survey and encourage you to participate.

Outlook may have marked this message as suspicious.

Rest assured, it is safe and to enable the link in the message, first click the red bar as pictured below.



Thank you

[Name Withheld]

9.5.2 - Management endorsement – Site B

9.5.2.1 - Initial Support

Hello,

Some of you will be receiving an invitation to participate in a survey regarding [Internal Branded SharePoint]. This survey is being conducted by Matthew Ranta, a graduate student at Lakehead University and employee at [Site Name], for his thesis.

All responses are kept anonymous and the survey is contracted to a third party company to ensure this. No one will be able to identify your response.

I have approved this survey and encourage you to participate.

Thank you for helping out!

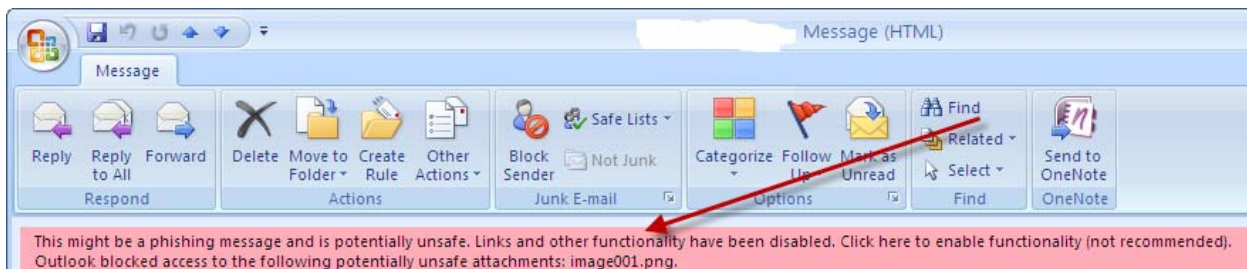
Best regards,

[Name Withheld]

9.5.2.2 - Technical Issue

As [Name Withheld] noted below some of you have received a survey regarding [Internal Branded SharePoint], which Outlook may have marked as suspicious.

Rest assured, it is safe and to enable the link in the message, first click the red bar as pictured below.



Thank You

[Name Withheld]

9.6 - Research Ethics Board Approval

Lakehead

UNIVERSITY

Office of Research

Tel 807-343-8934

Fax 807-346-7749

May 25, 2011

Principal Investigator: Dr. David Richards

Student Investigator: Matthew Ranta

Faculty of Business Administration

Lakehead University

955 Oliver Road

Thunder Bay, ON P7B 5E1

Dear Dr. Richards and Mr. Ranta:

Re: REB Project #: 092 10-11 / Romeo File No: 1461899

Granting Agency: N/A

Granting Agency Project #: N/A

On behalf of the Research Ethics Board, I am pleased to grant ethical approval to your research project entitled, "Trust in Management, Quality of Change Communication and Readiness for Change".

Ethics approval is valid until May 25, 2012. Please submit a Request for Renewal form to the Office of Research by April 25, 2012 if your research involving human subjects will continue for longer than one year. A Final Report must be submitted promptly upon completion of the project. Research Ethics Board forms are available at:

http://research.lakeheadu.ca/ethics_resources.html

During the course of the study, any modifications to the protocol or forms must not be initiated without prior written approval from the REB. You must promptly notify the REB of any adverse events that may occur.

Completed reports and correspondence may be directed to:

Research Ethics Board
c/o Office of Research
Lakehead University
955 Oliver Road
Thunder Bay, ON P7B 5E1
Fax: (807) 346-7749

Best wishes for a successful research project.

Sincerely,



Dr. Richard Maundrell
Chair, Research Ethics Board

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