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Andragogy and Lean Six Sigma in Today's Business Environment

by

# Teresa A. Anderson

A Dissertation submitted to the Education Faculty of Lindenwood University

In partial fulfillment of the requirements for the

Degree of

Doctor of Education

School of Education

Andragogy and Lean Six Sigma in Today's Business Environment

by

Teresa A. Anderson

This dissertation has been approved in partial fulfillment of the requirements for the

Degree of

Doctor of Education

At Lindenwood University by the School of Education

1. Heusehler

Dr. John Henschke, Chair

Dr. Stephen Sherblom, Committee Member

Dr. Mike Marzano, Committee Member

<u>4/26/19</u> Date

4-26-19

Date

4-26-19

Date

# **Declaration of Originality**

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work here at Lindenwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

Full Legal Name: Teresa Ann Anderson

Signature Sureca a. anderson Date: 4/26/19

### Dedication

I would like to dedicate my dissertation to my mother, father, and grandmother (Gracie Burns, and Roy & Mary Frances Hughley). They were with me spiritually all throughout my journey in researching this worthwhile topic in today's business environment.

I have always trusted their words of encouragement and the drive they instilled in me to pursue what dreams I wished upon. With hard work and perseverance, I believed that my dreams would become a reality. I will always treasure this historical accomplishment for years to come.

## Acknowledgements

I would like to thank my committee for their dedication and who taught me what perseverance, persistence, and patience look like by providing support and assistance in my desire to complete my research study at Lindenwood University.

This acknowledgement is also to my family and friends who believed in me and gave me that extra push, when I doubted myself. My professors, especially, my "rock and guiding light" Dr. John Henschke who encouraged me to continue and stay the course, and for that, I am forever grateful thank you!

#### Abstract

The purpose of this study was to investigate and identify and ragogical leadership educational traits/competencies that are associated with effectively educating/training employees/participants. The andragogical competencies were compared with the six identified soft skills of the Lean Six Sigma Trainer. The researcher also assessed the perceived level of employee satisfaction with the lean six sigma training program at the Monsanto Corporation. When compared with the andragogical competencies, five of the six articulated soft skills of the Lean Six Sigma Trainer had a very minimum explanation [which provided a very extensive gap] in the actual training: Vision, Leadership, Empowerment, Communication, Influence, and Testing. Testing was the only lean six sigma soft skill that had more explanation than the andragogical competencies, which did not address testing. Trust by Lean Six Sigma Trainers/Leaders/Educators in Learners/ Employees/Participants was referred to only three times. In leadership, the leader must develop trust; it was critical and comes from simple acts of treating people with respect and fostering positive relationships. In Empowerment, trust is part of its meaning. In Communication, it is part of organization power. Trust, as the strongest validated Competency by Successful Leaders/Trainers/Educators of adults in Learners/Employees/Participants, was referred to and exemplified: through positioning themselves with their 'walk and talk' matching; practicing active engagement/support with them in 11 reliably researched validated major elements of trust; and, adding/demonstrating strength by providing five organizational learning capabilities [OLC] in their work together as a team. This helps to 'flesh-out' much more about trust, than those by the Lean Six Sigma approach. Likewise, where Communication, Visionary

V

Leadership, and Empowerment were identified and addressed, the competencies of successful educators of adults provided more extensive detail for accomplishing the tasks and products of the organizational mission. Moreover, where reciprocity among the 23 research validated elements of Empathy with, Trust in and Sensitivity toward employees/participants are enacted, each employee/participant is increasingly satisfied with her/his job, and in turn more desirous to stay with the company. Furthermore, the study showed that all the 30 Monsanto employees were satisfied with the training provided by the Company, and this was supported by the researcher's observation of a number of live class sessions.

Declaration of Originalityii
Acknowledgementsiv
Abstractv
Table of Contents
List of Tablesxviii
List of Figuresxix
Chapter One: Introduction
Background2
Purpose
Rationale
Research Questions and Hypothesis
Research Question 1
Research Question 2
Hypothesis5
Significance of Study
Definition of Terms
Andragogy6
Balanced scorecard
Black Belt6
Blended learning
Business process improvement7
Business process management7

# **Table of Contents**

Champions7
Champion training7
Closed model training program7
Competency7
DMAIC Improvement Model7
E-Learning
Evaluation
Facilitator
Feedback
Green Belt
Hard skills
Incidental learning
Intentional learning
Leadership9
Lean9
Lean enterprise
Lean Six Sigma
Learning
Learner
Master Black Belt
Open Model Training Program
Organizational learning
Six Sigma

Soft skills10
Student evaluation of teaching10
Student rating of teaching10
SWOT analysis11
Total Quality Management11
Yellow Belt11
Objectives and Limitations:11
Conceptual Framework12
Conceptual Framework of the Study14
Summary14
Chapter Two: The Literature Review15
Introduction15
Research Questions and Hypothesis:16
Research Question 116
Research Question 216
Hypothesis
Conceptual Framework17
Lean Six Sigma Methodology17
What is Lean?
What is Six Sigma?17
What is Lean Six Sigma?
Lean Six Sigma Soft Skills
Lean Six Sigma soft skills associated with effectively training adults

Vision	. 19
Leadership	20
Empowerment	20
Communication	21
Influence	21
Testing	22
Workplace Transformation to Lean Six Sigma	23
Can a Lean Six Sigma Training Program Benefit Your Organization?	26
Training Lean Six Sigma Methodology to Employees.	26
Managing Lean Six Sigma Communication with Leadership	29
Effectively Training an Organization	. 31
The Importance of Training	33
Case Studies of Organizations' Transformation to Lean Six Sigma Methodology	7 34
Monsanto Corporation	34
General Electric	35
Boeing	35
Barnes Jewish Christian	37
Leadership Educational Effectiveness	38
Introduction to Appendices Related to Question 1	38
Leadership Traits Associated with Effectively Educating Adults	41
Prominent Traits for Effective Leadership	43
Management of Attention through Vision:	44
Management of Meaning through Communication:	45

	Management of Trust through Positioning:	. 45
	Management of Deployment of Self:	. 45
	Organizations Investing in Employee Training	. 46
	Business Process Improvement Survey	. 47
	LSS Trainers' Beliefs, Feelings, and Behaviors	. 48
	LSS Trainer's Modified Instructional Perspectives Inventory	. 49
	Merging MIPI with Leader Strategies for Taking Charge for LSS Trainers	. 49
	Doctoral dissertation completed using Modified Instructional Perspectives	
	Inventory.	. 50
	Participants' Level of Satisfaction	. 51
	Conclusion	. 51
Cha	pter Three: Methodology	. 52
	Introduction	. 52
	Research Question 1	. 52
	Reciprocity of Empathy, Trust, and Sensitivity	. 52
	Cronbach's Alpha Coefficients for the Validation of the MIPI	. 53
	Research Question 2	. 54
	Sampling Design	. 55
	The Lean Six Sigma Instruments	. 55
	LSS the Business Process Improvement Survey	. 55
	Hypothesis	. 57
	Introduction to Appendices Related to the Hypothesis	. 57
	LSS Trainers' Beliefs, Feelings, and Behaviors	. 57

	LSS Trainers' Modified Instructional Perspectives Inventory	58
	Merging MIPI with Leader Strategies for Taking Charge for LSSTs	59
	Doctoral Dissertation Completed Using Henschke's Modified Instructional	
	Perspectives Inventory	60
	Methodology and Research Design	60
	Methods, Sampling, & Participants	61
	Methodology Procedure	61
	The Research Site	63
	Data Collection	63
	Analysis Procedures	64
	Conclusion	64
Cha	pter Four: Results	66
	Introduction	66
	Research Questions and Hypothesis:	66
	Research Question 1	66
	Research Question 2	66
	Hypothesis	66
	Statements and Comparisons: The Lean Six Sigma Trainer and the Educator of	
	Adults	67
	Vision	67
	Vision Narrative	67
	EOA Leaders' Four Strategies for Taking Charge – Vision	69
	EOA Management of Attention through Vision	69

EOA Management of Meaning through Communication – Vision	0
EOA Management of Trust through Positioning – Vision	0
EOA Management of Deploying the Self through Positive Self-Regard and the	
Wallenda Factor – Vision	0
EOA Modified Instructional Prospective Inventory – Vision	1
EOA Merging MIPI with Organization Learning Capabilities – Vision	1
Gaps and Comparisons between the LSST and the EOA - Vision	2
Statements and Comparisons: The Lean Six Sigma Trainer and the Educator of	
Adults - Leadership	2
Leadership7	3
Leadership Narrative	3
EOA Management of Attention through Vision – Leadership	5
EOA Management of Meaning through Communication – Leadership	5
EOA Management of Trust through Positioning – Leadership	6
EOA Management of Deploying the Self through Positive Self-Regard and the	
Wallenda Factor – Leadership	6
EOA Reciprocity of Elements of Empathy, Trust, and Sensitivity – Leadership 70	6
EOA with Organizational Learning Capabilities and five Elements of its Meaning	
Leadership73	8
Statements and Comparisons Concerning the Lean Six Sigma Trainer (LSST) and	
the Educator of Adults (EOA) - Empowerment	0
Empowerment	0
Empowerment Narrative	0

EOA effect of Visionary Leadership – Empowerment	. 82
EOA OLC Elements of its Meaning with 45 Elements and Seven Factors of MIR	Ы
	. 83
EOA Visionary Leadership of Trust – Empowerment	. 84
Gaps and Comparisons between the LSST and the EOA - Empowerment	. 85
Statements and Comparisons Concerning the Lean Six Sigma Trainer and the	
Educator of Adults – Communication	. 85
Communication	. 86
Communication Narrative	. 86
EOA Management of the Organizational Meaning through Communication	. 88
EOA with OLC and Its five Elements with three of the seven Factors of the MIP	Ί
and Reciprocity: Empathy, Trust, and Sensitivity	. 89
Reciprocity of Empathy, Trust, and Sensitivity	. 89
Gaps and Comparisons between the LSST and the EOA	. 91
Statements and Comparisons Concerning the Lean Six Sigma Trainer and the	
Educator of Adults – Influence	.91
Influence	. 92
Influence Narrative	. 93
Competencies of Educators of Adults - with Emphasis on Influence through Five	e
Organizational Learning Capabilities	. 94
EOA Leaders Strategies of Taking Charge	. 95
Gaps and Comparisons between the LSST and the EOA	. 97

Statements and Comparisons Concerning the Lean Six Sigma Trainer (LSST) and		
the Educator of Adults (EOA) – Testing	97	
Testing	98	
Testing Narrative	98	
Emerging Themes/Aspects not Directly Included in the Lean Six Sigma		
Competencies	99	
Where Trust is Identified and Fully Expressed	99	
Where Communication is identified 1	00	
Where Leadership is addressed	01	
Where Reciprocity is Identified and Described	02	
Where Empowerment and its results are made visible 1	03	
Introduction to Appendix Related to Question 21	04	
Research Question 2 1	04	
The Business Process Improvement Survey	04	
Introduction to the Hypothesis Related to Question 2 1	16	
Hypothesis:	17	
Introduction to Appendices Related to Hypothesis 1	17	
Beliefs, Feelings, and Behaviors1	17	
LSS Trainers' Modified Instructional Perspectives Inventory	18	
Merging MIPI with Leader Strategies for Taking Charge for LSS Trainers 1	19	
Doctoral Dissertation Completed Using Henschke's Modified Instructional		
Perspectives Inventory 1	19	
Conclusion	19	

Chapter Five: Discussion, Implications, Recommendation
Overview
Research Question 1
Research Question 2121
Hypothesis
Discussion
Implications for Practice
Management of attention through vision
Management of meaning through communication125
Management of trust through positioning125
Management of deploying the self
Additional Implications for Practice126
Recommendations for Further Research
Conclusion127
References
Appendices
Appendix A138
Appendix B
Appendix C 172
Appendix D176
Appendix E
Appendix F179
Appendix G195

Appendix H	
Appendix I	
Appendix J	
Appendix K	
Appendix L	
Vitae	

# List of Tables

Table 1. MIPI Validity and Reliability Calculations	. 53
Table 2. Vatcharasirisook's Cronbach's Alpha Test Validity	. 53
Table 3. Moehl Alpha Coefficients	. 54
Table 4. Comparisons (LSST Vision – EOA Vision)	. 68
Table 5. Comparisons (LSST Leadership – EOA Leadership)	.74
Table 6. Comparisons (LSST Empowerment – EOA Empowerment)	. 81
Table 7. Comparisons (LSST Communication – EOA Communication)	. 87
Table 8. Reciprocity of Empathy, Trust, and Sensitivity	. 90
Table 9. Comparisons (LSST Influence – EOA Influence)	. 92
Table 10. Organizational Learning Capabilities – Elements of its Meaning	. 95
Table 11. Management of Attention Through Communication, Positioning, Positive	
Self Regard, and the Wallenda Factor	. 96
Table 12. Comparisons (LSST Testing – EOA Testing)	. 98

# List of Figures

Figure 1. Conceptual Framework
Figure 2. MIPI Validity and Reliability Calculations Chart
Figure 3. Organizational Communication103
Figure 4. Number of Anonymous Participants 105
Figure 5. Sex of Participants
Figure 6. Prior Business Process Improvement Training 106
Figure 7. Specify Training 106
Figure 8. Roles During Trainings 107
Figure 9. Trainer Knowledge and Materials108
Figure 10. Rating of Trainer 108
Figure 11. Rating of Training Materials and Training 109
Figure 12. Training Format Preferred
Figure 13. Recommendation of Training
Figure 14. Certifications Received
Figure 15. Management Support
Figure 16. Expectations Met? 113
Figure 17. Tools and Knowledge115
Figure 18. Overall Satisfaction
Figure F1. LSS Seven Factors
Figure F2. LSS Applied Frequency

#### **Chapter One: Introduction**

In 2016, many organizations were faced with competition in every aspect of business to achieve their bottom-line. Implementation of new ways of doing business for most organizations was to implement best practices. To implement best practices, an organization must have required training, learning, and benchmarking, to name a few areas that needed to be realized to ensure availability and reliability of systems to show value (Boca Gratiela & Gokkaya, 2011, p. 85). These were factors considered when leadership began to view other ways to sustain their organizations. Many leaders had looked at process improvement initiatives to streamlining then-current processes, to eliminate waste, and to increase profits. A process improvement tool, such as Lean Six Sigma had become highly deployable, as it found many ways to increase continuity and sustainability for most organizations.

Managing in a lean way meant training employees as adult learners to learn the Lean Six Sigma methodology. There were always challenges and new processes that required streamlining. Due to this dilemma, organizations had to look for other measures to continue to be competitive by eliminating redundancy and wastefulness within that organizational structure. Value was a critical component of any organization (Graban, 2007, pp. 2, 3).

Often, when an organization made hard decisions about streamlining budgets and how to fix the problem, creating value was generally the first strategy to implement change. If processes needed to be changed, usually the cost to implement the changes were identified as target cost, which would ensure better processes and better customer satisfaction to an organization (Womack & Jones, 2003, p. 35).

### Background

Prior to this writing, business organizations began to initiate process improvement, such as continuous quality improvements, total quality management (TQM), and other flexible improvement systems to improve how organizations operated by utilizing Lean Six Sigma. It was crucial for organizations to use new technology as it was critical in a broad range of well-designed areas that had technical issues. A TQM focused on accomplishing efficiency and sustainability as economically as possible. In the manufacturing sector of an organization, the need for more efficient models may decrease cost, waste, and labor (Boca Gratiela & Gokkaya, 2011, p. 86).

The Lean Six Sigma process was a way to understand value from the viewpoint of a customer and the elimination of waste; activities that do not add value; a methodology that increased velocity and created a continuous flow of value-adding activities; and a set of tools to continuously improve the flow. This process gave managers the tools to succeed and to provide training to transform the workforce to achieve these goals through a systematic process that was empowering and prepared the culture for change (Liker & Convis, 2011, p. 3).

During the years of 1912 to 1990 in Japan, Toyota executives identified several types of "muda," which was later translated as "waste." Lean provided ways to identify value (Womack, Jones, & Roos 2007, p. 11). The roots of Lean Six Sigma originated from the Toyota Production system as a set of manufacturing principles and tools; this tool evolved through the years under the terms such as Just-in-Time, and process redesign proved to be just as effective in transactional, office, and service environments as it was in manufacturing (Liker & Convis, 2011, p. 6).

### Purpose

The purpose of this case study was to investigate and identify identified leadership educational traits and competencies associated with effectively training employees. These leadership traits and competencies were to be compared to the identified soft skills of the Lean Six Sigma Trainer (LSST). The LSSTs at Monsanto were certified and were experts in the Lean Six Sigma field of process improvement.

This research offered opportunities for improvement for training at Monsanto associated with being able to effectively train employees to use the Lean Six Sigma methodology. The researcher also investigated and assessed the perceived level of satisfaction by the employee's course evaluations of a Lean Six Sigma training program.

# Rationale

In 2017, the business environment of organizations relied on key leadership skills to build on relationships between leaders, managers, and employees. These established relationships were vital in promoting organizational learning. Several dynamics played major roles, such as training employees, competition in other organizations, and consolidations within organizations. These dynamics made the business environment at the time of this writing challenging (Henschke & Vatcharasirisook, 2011, p. 1).

Job satisfaction, work attitudes, organizational learning, such as training and educating adult learners, seemed to have moved closer as priorities within the workplace (Henschke & Vatcharasirisook, 2011, p. 1). An employee must have possessed the proper leadership skills, traits, and the necessary competencies to succeed within an organization to remain valuable. Management should have been trained and prepared to learn all aspects of creating value on every level in utilizing Lean Six Sigma (Womack et al., 2007, p. 12).

Lean Six Sigma was not a new methodology. Lean Six Sigma had been around, mainly in the manufacturing sector, for many years, dating back to 1980. Lean Six Sigma was being utilized in every area of organizations in business environment, at the time of this writing. Therefore, training, coaching, and mentoring adult learners who utilized this methodology could be vital to an organization's success. Lean Six Sigma was now being taught to employees in other areas of the organization (George, 2003, p. 65), such as supply chain, commercial, business, and research.

Lean Six Sigma methodology was essential for organizations to decrease waste by cost savings and cost avoidance, and by removing risks that could present challenges within an organization. If an organization did not reduce or eliminate risks in the business environment, organizations may not have been sustainable in the challenging and competitive environment in business organization, at the time of this writing (George, 2003, p. 172).

This study may allow additional research in the comparison of educational leadership traits and Lean Six Sigma soft skills that had become a fundamental in training adult learners in many industries, including the educational sector. These leadership traits were important and may offer new aspects in other business areas in an organization. Additionally, making this comparison could lead to refinements and create opportunities for further research (George, 2010, p. 5).

#### **Research Questions and Hypothesis**

These two research questions and one hypothesis were the focus of this study.

**Research Question 1**. What is the comparison between the identified leadership traits and competencies that are associated with effectively training and educating adult learners and the identified soft skills of the Lean Six Sigma Trainer? (Appendix B; Appendix B-1; Appendix B-2; Appendix B-3; Appendix B-4; Appendix C)

Competencies considered were: 1) vision, 2) leadership, 3) empowerment, 4) communication, 5) influence, and 6) testing

**Research Question 2**. What was the level of satisfaction with Monsanto's Lean Six Sigma training program (conducted by LSST) as measured by the anonymous electronic course evaluation survey? (Appendix D).

**Hypothesis**: If Lean Six Sigma Trainers effectively trained employees, employees embraced knowledge transfer based on their level of satisfaction and commitment, as measured by the Business Process Improvement Training Survey responses.

The hypothesis was designed to address and add to the level of support indicated from the data for Research Question 2 and Appendix D. The information addressed the hypothesis through the Beliefs, Feelings, and Behaviors of LSSTs with adult learners (Appendix F), Adapted Inventory of Competencies of an Educator of Adults (Appendix F-1), which listed the frequency used by the LSSTs with adult learners, and merging MIPI with Leader Strategies for Taking Charge for LSSTs (Appendix G).

#### Significance of Study

The first significance of this study was that Lean Six Sigma remained a vital methodology that focused on eliminating waste in any sector in any business environment. This methodology allowed executives and managers to monitor processes by observing data that revealed what worked and what did not, what process needed to be improved or eliminated to establish better performance (Harver, 2015, p. 4).

The second significance of this study outlined the interaction with adult learners and how certain factors such as: trust, empathy, reciprocity between adult learners (Henschke, 2013), and trainers and communication, influence, testing, empowerment, leadership, and vision all played major roles between adult learners and the LSSTs.

## **Definition of Terms**

Terms used in this study were as follows:

Andragogy – Presents core principles of adult learning that in turn enable those designing and conducting adult learning to build more effective learning processes for adults (Knowles, Holton, & Swanson, 2015, p. 3). Andragogy was also commonly thought of as the art and science of helping facilitate the learning of adults (Henschke, 2013).

**Balanced scorecard** - Translates mission and strategy into objectives and measures, organized into four perspectives: financial, customer, internal business process, and learning and growth. The scorecard provided a framework, a language, to communicate mission and strategy (Kaplan & Norton, 1996, p. 25).

**Black Belt** – A Lean Six Sigma role associated with an individual typically assigned full time to train and mentor Green Belts, as well as lead improvement projects using specified methodologies, such as define, measure, analyze, improve, and control (DMAIC) (Kubiak & Benbow, 2009, p. 17).

**Blended learning** – Effective blended learning courses require students to interact with each other, the content, and their own thoughts. Blended learning was a

fundamental redesign that transformed the structure of teaching and learning (Glazer, 2012, pp. 3, 5).

**Business process improvement** – Focuses on improving the effectiveness and efficiency of individual processes for results that benefit the customer and the organization from a business perspective (Sweet & Silver, 2014, p. 1).

**Business process management** - building an organizational process culture, with governance, consistent tools, and techniques, such as process modeling, metrics, analysis, and standardization applications tools (Sweet & Silver, 2014, p. 2).

**Champions** – This scale measured the extent to which a specific individual was leading a strategy through the implementation process (Mahlendorf, 2008, p. 34).

**Champion training** – This training required time and commitment from top-level management. Executives assessed their then-current practices and defined the business objectives of the combination Lean and Six Sigma initiatives (Smith, 2003, p. 41).

**Closed model training program** – Is predictive and used exactly as it was designed. The conclusions and outcomes were predetermined (Nadler & Nadler, 2012, p. 8).

**Competency** – Covers general sense, including skills, knowledge, tasks, and learning outcomes (Sicilia, 2007, p. 193).

**DMAIC Improvement Model** – Has two major areas where measurements were critical. The first is where the then-current processes were measured; second, was during the control phase. This was where new processes were measured to provide ongoing feedback on process activities and outcomes (Duffy, 2014, p. 106).

**E-Learning** – the use of information and computer technologies to create learning experiences (Horton, 2006, p. 1).

**Evaluation** – the outcome of the process and to assess what has taken place. Evaluation is not only relevant; it is essential (Nadler & Nadler, 2012, pp. 17, 19).

**Facilitator** – the duties of a facilitator is to provide facilitation in training and education on a face-to-face basis, from a distance, through electronic devices and by enabling individuals to acquire learning (Nadler & Nadler, 2012, p. 11).

**Feedback** – to identify the method of communication to provide dialogue. The form of the feedback must be relevant to the recipient's usual work procedures, which should include the ideas, such as analysis, action, and objectives during evaluation (Nadler & Nadler, 2012, pp, 19, 21, 22).

Green Belt – The duty to work with Black Belts to solve problems. The individuals must have statistical knowledge and be trained in basic Six Sigma concepts. These concepts include problem solving and statistical analysis. They should be involved with Lean Six Sigma projects before obtaining their certification (Taghizadegan, 2006, p. 106).

**Hard skills** – Are also known as technical skills that a person acquires through the cognitive aspect of intelligence through formal learning, training, or coaching (Verma, 2013, p. 29).

**Incidental learning** – When an individual engages in various social activities and entertainment as in watching television, reading, etc., he/she learns. This kind of learning is not planned, nor is it the primary reason for doing these things (Nadler & Nadler, 2012, p. 3).

**Intentional learning** – This learning experience is intentional, where the individual expects to be a learner. This experience consists of identified learning objectives, specific time dedicated to learning, and a form of evaluation during or after the completed program (Nadler & Nadler, 2012, p. 3).

**Leadership** – a specific set of skills, knowledge, and abilities. Anyone who possesses this knowledge, demonstrates requisite abilities, and exercises leadership skills competently is a leader, regardless of the title possessed or status in the relationship (Fairholm, 2011, p. 36).

Lean – Indicates speed, agility, and aggressiveness. Lean represents a commitment to a set of principles, practices, and the ability to accomplish more with fewer resources (Sayer & Williams, 2012, pp. 9, 11).

Lean enterprise – This component is a business entity in which the internal organization and operations are always in synchronization with the needs of the market. It is geared to create sustainable values for all stakeholders while eliminating waste in all activities (Tsigkas, 2013, p. 1).

**Lean Six Sigma** – Calls for systems whose performance can be measured, deduces where losses are occurring in terms of wasted inputs, and then allows an individual to correct that (Harver, 2015 p. 4).

Learning – the acquisition of new skills, attitudes, and knowledge (Nadler & Nadler, 2012 p. 10).

Learner – Learners are human beings with much to offer and learn (Nadler & Nadler, 2012, p. 10).

Master Black Belt – A teacher and mentor of Black Belts who provides support, reviews projects, and undertakes large-scale projects (Baird, 2009, p. 268).

**Open Model Training Program** – This program tends to be a verbal model that contributes to understanding of human behavior and should not be avoided in favor of only mathematical models. One of the weaknesses of some open models is that feedback during design in not automatic (Nadler & Nadler, 2012, p. 8).

**Organizational learning** – Can be considered as systemic behavior oriented to acquire capacities for dealing with the needs and challenges of organizations in competitive environments (Sicilia, 2007, p. 1).

**Six Sigma** – This is a problem-solving methodology. There were authorities that thought that Six Sigma methodology was to be one of the most effective problem-solving methodologies available for improving business and organizational performance (Gygi, DeCarlo, & Williams, 2012, p. 9).

**Soft skills** – Traits and skills commonly found in the workplace, such as listening, empathy, interpersonal communication, team-building, group dynamics, sensitivity to others, compassion, integrity, and honesty (Kamin, 2013, p. 8). In the workplace, it is ideal to have a person who effectively facilitates meetings and works well with other people who have good "soft skills" (Breyfogle, Cupello, & Meadows, 2001. p. 252).

**Student evaluation of teaching** – The evaluation by students of their teachers' performances (Benton & Cashin, 2012, pp. 279-280).

**Student rating of teaching** – This is when a student rates the effectiveness of teaching (Benton & Cashin, 2012, pp. 279-280).

**SWOT analysis** – This analysis is an "ideas" tool. It will quickly highlight good opportunities for improvement, such as strengths, weaknesses, opportunities, and threats within a company (Borris, 2012, pp. 50-52).

**Total Quality Management** – A set of systematic activities carried out by the entire organization to effectively and efficiently achieve the organization's objectives and a broad culture change vehicle with internal and external focus embracing behavioral and service issues, as well as quality assurance and process control (Oakland, 2014, p. 23).

**Yellow Belt** – any employee who received introductory training in the fundamentals of Six Sigma. The Yellow Belt gathers data, participates in problemsolving exercises, and adds their personal experiences to the exploration process. Yellow Belts should have basic high school level math and reading skills (Baird, 2009, p. 277).

#### **Objectives and Limitations:**

There were limitations and objectives noted in this research study:

The main objectives were:

- Sought strategies to begin the implementation of Lean Six Sigma in the IT organization.
- Sought support from the IT Executives to train employees for process improvements in cost savings and cost avoidance.
- Sought strategies for continuous improvement in a robust Lean Six Sigma training program at Monsanto, domestic and globally.

The main limitation was: It was noted early in the study that the IT organization had adopted another methodology to implement, which was Human Centered-Design. This new methodology in the IT organization was closely related to the Lean Six Sigma

### ANDRAGOGY AND LEAN SIX SIGMA

methodology; however, one of the main objectives was structured around human behaviors, informal focus on process improvement, and trends and metrics that determined success, impact, and areas of improvement.

One of the main principles of human centered-design was to cultivate the mindset among employees, which encouraged each employee to become accountable in actively being engaged in the innovation that everyone's daily activities could advance the global cultural experience of the IT organization (Kumar, 2013, p. 6).

The limitation noted for Research Question 2 was the study only included 30 anonymous evaluations and the employees/participants were curious and willing to get their certification as Lean Six Sigma Green Belts. The study only included one organization where the Lean Six Sigma training program was mature and healthy. The study would determine if the Lean Six Sigma training program would be sustainable and could reach out to other areas of this organization to explore future research that could impact continuous process improvement in every aspect of the organization.

#### **Conceptual Framework**

The Conceptual Framework provided the outline for this research study. The outline clarified the conceptual framework of this research study by using different rating tools that captured the essence of this study in comparing leadership traits and soft skills of the LSSTs that were associated with effectively training and educating employees/ participants (Appendix E).

12

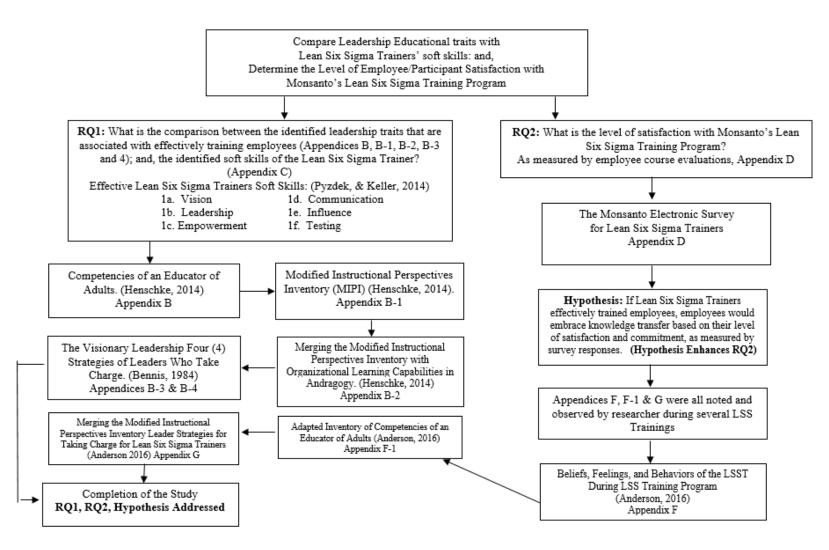


Figure 1. Conceptual Framework.

#### **Conceptual Framework of the Study**

The researcher compared the Lean Six Sigma soft skills with the leadership traits associated with effectively training employees. Research Question 1 followed a track that compared the Lean Six Sigma soft skills with the effective teaching of adults/employees/participants. Research Question 2 and the Hypothesis followed another track that addressed the level of satisfaction of Monsanto employees in the training program. These two tracks were ultimately merged to complete the study. This is illustrated in Figure 1.

The data collected for this study were established by: comparison of effective adult learning techniques with the Lean Six Sigma soft skills; employees/participants completion of the Business Process Improvement Survey of the Monsanto Lean Six Sigma training program; and, observations of the researcher regarding additional support for the level of satisfaction.

#### **Summary**

This research study was a qualitative study. Included in Chapter One was the background, purpose, rationale, research questions and hypothesis, Significance of the study, terms used, and limitations and objectives. Data collected for this study were established by employees/participants completing Lean Six Sigma training for Green Belt, Black Belt, Master Black Belt, and Practitioner certifications, and Lean Event Trainers.

#### **Chapter Two: The Literature Review**

## Introduction

Chapter Two includes a list of the 54 Competencies of an Educator of Adults (Appendix B). These were derived from the 45 items on the Modified Instructional Perspectives Inventory (Appendix B-1; Appendix B-2; Appendix B-3; Appendix B-4).

The 45 items derived from the MIPI (Appendix B-1), were distributed among seven factors: 1) Teacher Empathy with Learner; 2) Teacher Trust of Learners; 3) Planning and Delivery of Instruction; 4) Accommodating Learners Uniqueness; 5) Teacher Insensitivity/Sensitivity toward Learners; 6) Learner-Centered (Experienced-Based) Learning Process; and 7) Teacher-Centered Learning Process (Appendix B-1).

The five Organizational Learning Capabilities (OLCs) – Elements of its Meaning, are: 1) experimentation; 2) risk-taking; 3) interaction with the external environment; 4) dialogue; and 5) participative decision-making (Appendix B-2). These OLCs were merged with the seven factors of the MIPI.

The four Management Strategies of Visionary Leadership are: management of attention through vision; 2) management of meaning through communication; 3) management of trust through positioning; and 4) management of deploying the self through positive self-regard, knowing themselves, their strengths and nurturing them; and, the Wallenda Factor – capacity for concentration on the intention, the task, and the decision (Appendix B-3; Appendix B-4, pp. 217, 224) was merged with the seven factors of the MIPI.

The prominent soft skills (Appendix C) of LSSTs were researched as noted skills needed to train adult learners the Lean Six Sigma methodology in a training program.

15

Competencies considered were: 1) vision, 2) leadership, 3) empowerment, 4) communication, 5) influence, and 6) testing.

#### **Research Questions and Hypothesis:**

**Research Question 1**. What is the comparison between the identified leadership traits and competencies that are associated with effectively training and educating adult learners and the identified soft skills of the Lean Six Sigma Trainer? (Appendix B; Appendix B-1; Appendix B-2; Appendix B-3; Appendix B-4; Appendix C).

**Research Question 2**. What was the level of satisfaction with Monsanto's Lean Six Sigma training program (conducted by Lean Six Sigma Trainers) as measured by the electronic course evaluation survey? (Appendix D).

# Hypothesis:

If Lean Six Sigma Trainers effectively trained employees, employees embraced knowledge transfer based on their levels of satisfaction and commitment, as measured by the Business Process Improvement Training Survey responses.

The Hypothesis was designed to address and add to the level of support that was indicated from the data from Research Question 2 and Appendix D. The information which addressed the Hypothesis was through the Beliefs, Feelings, and Behaviors of LSSTs with adult learners (Appendix F), Adapted Inventory of Competencies of an Educator of Adults (Appendix F-1), which listed the frequency used by the LSSTs with adult learners, and merging MIPI with Leader Strategies for Taking Charge for LSSTs (Appendix G).

## **Conceptual Framework:**

The Conceptual Framework (Appendix E) provided the outline for this research study. Different rating tools were used that captured the essence of this study in comparing leadership traits that were associated with effectively training and educating employees/participants, with soft skills of the LSSTs.

# Lean Six Sigma Methodology

What is Lean? The main purpose of Lean was to eliminate waste; however, there were several other purposes, such as: 1) to control and maintain current processes and 2) to improve those processes. In the business environment at the time of this writing, many organizations operated within these two confinements of their processes. The organizations focused on process improvement, risk and cost management, and performance improvement. Once an organization made the commitment to become a Lean organization, focus begun to shift to socio-behavioral thinking of employees, education of employees, and efficient change management for the adoption of Lean methodology (Charron, Harrington, Voehl & Wiggin, 2015, p. 81).

What is Six Sigma? Breyfogle (2003, p. 7) stated Six Sigma was a term used as a Greek Letter ( $\sigma$ ); which was to measure units considered defective. The Six Sigma methodology was equated to 3.4 defects per million opportunities (DPMO). The approach to use Six Sigma often involved statistical and non-statistical methods in a work environment to implement knowledge that would be directed in the development of better quality and more efficient products faster than competitors.

Six Sigma was defined as any defect that did not meet the customers' needs or their expectations. Additionally, Six Sigma was designed for data-driven purposes that gave management the tool to make straight decisions and actions within the entire organization. Another way to describe Six Sigma was the approach of the purpose and the set of tools introduced, specifically TQM, statistical metrics that originated at Motorola Corporation (Jones, 2014, p. 46).

Six Sigma sought inefficiencies by reviewing metrics and process steps in a thencurrent state of processes, and Lean created the speed in which to bring these inefficiencies to the forefront and offered proven principles that would quickly eliminate waste on every level.

What is Lean Six Sigma? The Lean Six Sigma theory denoted understanding, improvement of quality and other processes within an organization. Being successful usually meant better efficiencies, better understanding of customer's need and satisfaction, improved bottom-line, and competitiveness. Lean Six Sigma created faster improvements in costs, process speed, quality, and customer satisfaction. Lean controlled process speed and Six Sigma meant better statistical control (George, 2003, p. 6). Lean had a large presence in the manufacturing industry and Six Sigma had an enormous 'brand' in the world of corporate development.

#### Lean Six Sigma Soft Skills

#### Lean Six Sigma soft skills associated with effectively training adults.

This research investigated and identified other studies that identified LSST soft skills that were associated with effectively training employees (Appendix C). The following is a narrative description and explanation of the Lean Six Sigma competencies listed in Appendix C. **Vision**. Vision was a soft skill that was equally important to create the ability to communicate the vision to leaders, sponsors, and participants during any training. Vision was the first of the noted soft skills for the LSSTs. The vision must be consistent and persistent. The vision would require participants to change their behaviors by communicating the vision. The vision was an important element of building organizational buy-in (Pyzdek & Keller, 2014, p. 15). The LSST should have the ability to set strategies and show visionary leadership (Antony, Vinodh, & Gijo, 2016, p. 19).

However, appropriate use of LSS soft skills and leadership traits, there were noted differences and similarities that could suggest additional study of LSS soft skills and Leadership traits in the future for further study. It was also noted, even though LSS trainers were Black Belts and Master Black Belts, they were also considered leaders or subject matter experts in the field of LSS.

LSSTs must use every opportunity to speak about the company's vision and how Lean Six Sigma methodology could help the company achieve its vision (Watson-Hemphill & Bradley, 2016, p. 27). The trainers must vigorously pursue ways to eliminate barriers that could impede success (Watson-Hemphill & Bradley, 2016, p. 28).

One critical aspect of sustaining goals, objectives, and the vision of the organization was to make sure all team members were clear about those goals, objectives, and the vision of the organization. Not only were they aware, but their acknowledgement should be noted, and they should be rewarded in some small way (Watson-Hemphill & Bradley, 2016, p. 46). Everyone should be made aware of the new vision and why the old way of doing business was not healthy for the overall growth of the company (Watson-Hemphill & Bradley, 2016, p. 48).

**Leadership**. (Loethen, 2008, p. 27). In addition, leadership was crucial to the overall success of a Lean Six Sigma initiative. Leadership skills were critical to train people that were responsible for accomplishing certain goals and objectives (Loethen, 2008, p. 30). Leadership created an environment of passion and pride; performance would be the natural result.

Leadership developed trust; trust was critical, and trust came from the simple acts of treating people with respect and fostering positive relationships (Kamin, 2013, p. 16). Leadership was a style where the leaders engaged and motivated followers, while also assisting with the followers' leadership development (Loethen, 2008, p. 6). The LSST must communicate a vision of the organization and that vision must be consistent and persistent, in both word and deed, and change behavior, to which does not come easily, communication was a key aspect of building buy-in (Pyzdek & Keller, 2014, p. 15). Leadership was a soft skill that leaders displayed that enhanced the motivation of others while promoting development and improved performance (Loethen, 2008, p. 26).

**Empowerment**. Empowerment and teamwork (participating and supportive leadership) was as vital as involved leadership. Empowerment was the third noted soft skills for the LSSTs. Due to the LSST's focus on timely responses to customer concerns, the LSSTs engaged employees in taking a leadership approach and they shared information and knowledge with the employees (Jacobs, 2015, p. 225).

In addition, Empowerment brought transparency to an organization that either you were part of the solution or part of the problem (Burton, 2011, p. 192). Empowerment and engagement were critical to LSSTs for organizational goals, Empowerment meant

mutual respect, trust, skill, and teaming competencies, responsible in actions and getting results for LSSTs were willing to share power (Burton, 2011, p. 206).

**Communication**. In this research, communication was one of several fundamental soft skills needed to relay the educational component of any training (Burton, 2011, p. 192). Communication was the fourth noted soft skill for LSSTs. As a full-time change agent, the LSSTs must have flawless interactive skills and must be able to communicate verbally and in writing. These skills would allow the LSST to effectively communicate the goal of training participants during the LSS training (Pyzdek & Keller, 2014, p. 28).

In addition, the LSST must be able to master a body of methodological knowledge of Lean Six Sigma (Pyzdek & Keller, 2014, p. 28). LSSTs must be able to communicate in public as well as in other settings. LSSTs must be able to train in small groups effectively as a participant and as well as a leader, in addition, LSSTs must be able to train in one-on-one settings, to be able to carry out the identified goals from the leaders and the sponsor (Pyzdek & Keller, 2014, p. 28). The LSST must create the power of an organization, which included, openness, trust, and honest communication. The LSST must define and communicate the strategy to achieve and maintain quality adopted by the organization (Antony et al., 2016 p. 19).

**Influence**. Influence is a soft skill that was important to those trying to implement change because it could render leverage by having focus on initial efforts of a small percentage of the organization, instead of trying to directly engage every single employee. Influence was the fifth noted soft skills for LSSTs. If one could engage high-level initially, the project would become sustainable (George, 2003, p. 190). Influence is

important to those trying to implement change, Influence meant getting enormous leverage by focusing on initial efforts. Influence allowed greater changes that the deployment would progress smoothly and receive support (George, 2003, p. 191). Influence could be communicated if people were interacting with their peers (Katz, Lazarsfeld, & Roper, 1955, p. 79). Also, influence could reach higher levels even though it could be modeled to the masses, if there were interactions within individuals (Maxwell & Dornan, 1997, p. 7).

**Testing**. Testing was the last step of Allen, Hambrecht, and Welch's (1945), four-step process in training within industry (TWI) in educating and training participants. Step 1 was preparation, Step 2 was presentation, Step 3 was application, and the last step was, Step 4, testing (p. 129). Any instructor who could master the fourth step with a participant was a rare asset. Testing was the sixth and last noted soft skill for LSSTs. In addition, Testing was as much a test for the trainer, as well as the learner (Huntzinger, 2005, p. 10). Testing allowed the participants to complete a process unassisted, but the LSSTs viewed the process, evaluated the training materials and resources, allowed learners to do the task unaided, and were viewed by the LSST (Kubiak, 2012, p. 272).

If each of the lesson steps had been carefully and properly developed and taught, the learner would not have failed during the test step. The fault lay completely with the instructor; therefore, true instruction was not an easy skill to learn. If the learner failed to do the work independently, it was a result of the instructor not implementing the proper teaching method, and the instruction must be improved and repeated (Huntzinger, 2005, p. 10).

## Workplace Transformation to Lean Six Sigma

Lean Six Sigma was utilized to increase profits and reduce waste in an organization by transforming the culture for continuous improvements that could be measurable. Therefore, the transformation would be the new way of doing business into the future to "get the right things done" for continued success (Dennis, 2006, p. 7). The most successful and necessary ingredient of training an organization was to have the buy-in of upper management for continuous improvement efforts.

Finally, the focus of this study explored the effectiveness of training employees to begin transitioning to Lean Six Sigma in the business environment, at the time of this writing. During this research, there were case studies of organizations that transitioned to utilizing Lean Six Sigma. These organizations boasted positive Return on Investment (ROI). These organizations were faced with challenges and they sought a process improvement initiative, such as Lean Six Sigma, to remain viable and competitive. There were many factors that would drive an organization to seek stability, such as increased costs, ineffective products, waste, and dissatisfied customers; these factors affect the bottom-line of any organization.

To begin the transformation to change the culture of an organization, leaders must provide training to employees in the improvement performance areas within an organization; by utilizing this approach, training would benefit the organization and employees. During this process, leaders noticed that some employees resisted change; as it was noted, most people do not like change or changes (Harry & Schroeder, 2000, p. 272). An outside agency conducted a survey (Smith, 2003, p. 41) that found that employees in an organization participated in six or more Kaizen (Blitz) Lean Events; 20% of the employees spoke highly of the event and were more positive than employees who had not participated. Upon the results of the survey, employees who had not participated, but had knowledge, were more negative than those who had no knowledge prior to an event. Additionally, employees felt well about making more efficient products and that they were a part of the new positive change within the organization. Once the leaders revealed the positive results, such as increased ROI and better development of products, employees acknowledged that it was possible to surpass competition (Smith, 2003, p. 41).

Leaders who support Lean Six Sigma methodology, must take ownership of the transformation. Leaders who participated in Lean Six Sigma at a previous organization should share those positive outcomes with the new organization to promote success. However, leadership must be fully immersed in the methods, tools, and the positive outcome that could benefit an organization (George, 2003, p. 65). Organizations that achieved Lean Six Sigma methodologies could place themselves in a place to be at the forefront of their competitors, and therefore, continually strive for the best (Harry & Schroeder, 2000, p. 61).

During the transformation period, employees could display strong emotions when they did not fully understand the benefits, and often the old way of doing business could clash with the new way of doing business. An employer may experience employees who do not believe the new way would be a better way of doing business. In transforming an organizational culture, this task would be most difficult, but not impossible (Harry & Schroeder, 2000, p. 11).

The Lean Six Sigma approach was successful in other areas within an organization, such as transactional, human resource, banking, telecommunications, insurance industry, and the financial industries. Initially, manufacturing was widely known for the existence of Lean and Six Sigma methodologies; but recent to this writing, other service areas began to dominate the use of Lean Six Sigma and the benefits of these service organizations were substantially better in also perfecting the Lean Six Sigma methodology (Guarraia, Carey, Corbett, & Neuhaus, 2009, p. 57).

Many organizations, such as Monsanto, implemented specific teams for collaboration purposes. These teams' main function was to exchange and share information with each team member to become more transparent, which was generally not the norm when it came to competition within the various teams at Monsanto (Farson & Keyes, 2006, p. 255).

Monsanto began the transformation to Lean Six Sigma several years previous to this writing. Lean was prevalent in the plant at 97% on-stream time. Due to this change, it was noted that Monsanto's normal percentage in the plant was between 85% and 90%, after the transformation, the higher percentage of 97% showed an increase in production. Monsanto further noted that with each additional percentage increase represented \$1M savings annually (Charron et al., 2015, p. 81).

In an organization in the business environment, at the time of this writing, management must take the reins and delegate the responsibilities of the Lean Six Sigma transformation with total support. Management must be trained and ready to learn all aspects of creating value on every level (Womack et al., 2007, p. 185).

#### Can a Lean Six Sigma Training Program Benefit Your Organization?

Many organizations were eager to find new methods to capitalize on increased profitability. These organizations considered Lean Six Sigma methodologies due to the belief that Lean Six Sigma processes would sustain and increase capital, provide cost avoidance, cost savings, and overall better quality and services. Lean Six Sigma methodologies proved to directly affect an organization's bottom-line. The use of Lean Six Sigma formed financial stability by utilizing business strategies that would assist them to have an edge with their competitors. By using Lean Six Sigma, this could become a great possibility (Harry & Schroeder, 2000, p. 4).

#### Training Lean Six Sigma Methodology to Employees.

Each employee who sought Black or Green Belt certification at a Lean Six Sigma training program was obligated to obtain a satisfactory score on the written assessment, which measured employees' comprehension. After the completion of the assessment, each employee must complete a Green Belt project (Kubiak, 2012, p. 1).

Additionally, the contents of the assessment were multiple choice and would take two and one half hours to complete the written exam. The assessment included a host of cognitive questions, such as enterprise type questions, leadership questions, organizational process management and measured questions, team management questions, and team facilitation questions (Kubiak, 2012, pp. 1-24). Each of the tests was offered bi-annually, in March and October. All certifications were in the open book format (Kubiak & Benbow, 2009, p. 17). There were various books about Lean Six Sigma. Lean Six Sigma became popular, not only in the manufacturing sector, but in other areas of an organization. In researching Lean Six Sigma, it might have seemed that it took over the world. Lean Six Sigma developed simple ideas that achieved new ways of thinking, increased productivity, and stabilized areas of concern. When considering using Lean Six Sigma processes, the executive team and managers should be trained to get the full impact of what they attempted to accomplish by getting new ideas that became successful in changing the views of everyone in the organization (Womack & Jones, 2003, p. 35).

Usually, when Lean Six Sigma failed, it was largely due to a perception that upper management did not visibly show support or communicate the need for change. Leaders must take the reins and delegate the responsibilities of this transformation with total support. Leaders must be trained and ready to learn all aspects of creating value on every level. Additionally, embarking on this methodology created more challenges as it began to spread within the organization. It also created anxiety, due to making costly errors during the transformation (Womack et al., 2007, p. 12).

Within the decade previous to this writing, the Lean Six Sigma methodology was used to assist many organizations to achieve optimal success. In utilizing Lean Six Sigma, an organization had the expectations that quality services and quality products would be visible, thus, creating value, which represented valuable growth for the organization and consumers (Harry & Schroeder, 2000, p. 4).

Organizations that used Lean Six Sigma showed the significance of value by measuring, tracking, and analyzing important data that would guide certain strategies considered before implementation. These strategies were most important to an organization's success, and it was imperative that it must come from the executive leadership for momentum throughout the organization (Harry & Schroeder, 2000, p. 166).

An organization should provide the critical tools of Lean Six Sigma to train the organization personnel. It would be critical to provide training and schedule certifications for Master Black Belts, Black Belts, Green Belts, and Yellow Belts to receive the best possible outcome for any project. The Belts represented the level of knowledge of the LSST, as subject matter experts in continuous improvement for each level of certification. Continuous improvement programs and training usually took several weeks to complete. Certification and training for a Black Belt generally meant that it would take six months to complete training and the first project. Certification for a Green Belt should normally take four months of training and completion of the first project. Generally, training was conducted in the same format as classroom training. There were other training resources, such as applied learning, blended, and e-learning for training to achieve the implementation of Lean Six Sigma (George, 2010, p. 286).

The relationship between speed, quality, and cost was the need to produce products faster, with high quality, fewer errors, and lowered cost for the organization. The term used for this relationship was, "Doing it right the first time" (George, 2010, p. 5). This concept was powerful on the process level and on the enterprise level. Additional concepts were: increased speed of execution, quicker transfer of best practices, improved employee capabilities, and assigned responsibilities to the most flourishing level in the organization. Additionally, the reduction of cost, diminished variation, and continually improved processes measuring the mindset of the culture brought awareness of long-term results to provide competitive advantages to many manufacturing and service organizations (George, 2010, p. 5).

For business development and control, training was clearly an optimal approach (Farson & Keyes, 2006, p. 197). A training program was designed to train and educate on the importance of techniques and methods (Farson & Keyes, 2006, p. 66). When balance and training were achieved, they were accounted for by many successful "state of the art" technical firms and added balance to business skills by emphasizing then-current technical knowledge (Farson & Keyes, 2006, p. 186).

#### Managing Lean Six Sigma Communication with Leadership

Using Lean Six Sigma projects could define the quality of leadership in an organization. There were many Lean Six Sigma projects that focused on leadership development and were aimed at meeting the needs of targeted leadership goals. Any organization that failed to incorporate leadership with Lean Six Sigma, or not, and implemented a communication strategy, would not achieve the desired outcome from any project (Jones, 2014, p. 46).

When leaders decided to utilize Lean Six Sigma in an organization, leaders should begin the process by listening to employees and seeking what would be considered pain or issues. If leaders made abundantly clear the advantages to using a new method to derive better outcomes for the organization, employees would perceive this to be a business goal that must be achieved and supported by everyone (George, 2003, p. 182).

Leaders must be familiar with Lean Six Sigma tools, perceptions, and requirements to effectively lead this effort and to make sure needed resources are available to guarantee success among employees. If leaders do not make the effort to support the terminologies, methodologies, and other language associated with Lean Six Sigma and the potential, how would management expect to convince employees that this is the correct way of doing business and to support the business goals? (George, 2003, p. 65).

Leaders must set business goals that should be achievable within two to five years. These goals must create value for the organization and reflect the expected gains by utilizing Lean Six Sigma methodologies. Additionally, in utilizing Lean Six Sigma methodologies, one of a leaders' main priorities would be to know where to strategically place Master Black, Black, and Green Belts within the organization to gain maximum velocity in determining the needs of the organization. This placement must be structured and not allow the Belts to wander aimlessly within the organization, this was the reason why most Belts tackled all problems, regardless of the size, with the same approach (Guarraia et al., 2009, p. 57).

Additionally, the Belts should be challenged with goals that should become priorities and be achievable by the employees. The goals that would be most beneficial to an organization would be to achieve a 5% to 10% improved gross margin, 10% increased revenue growth, 10% reduction of overhead employees, free up employees to complete the tasks they were hired to complete, and generate at least \$500,000 in cost avoidance or cost savings from each Black Belt within the organization per year. Leaders could accomplish a sustainable organization with similar business goals (George, 2003, p. 65).

In addition, leaders should always focus on reducing operating costs and set their sights on the most important project, which was to improve quality that would have a

30

profound impact (George, 2003, p. 172). Once efficiencies have been identified in an organization, only then can performance measures for better improvements have the biggest impact, externally and internally, and be achievable (Guarraia et al., 2009, p. 57).

This research concluded that Lean Six Sigma methodology is essential for organizations to decrease waste by cost savings and cost avoidance, and by removing risks that could present challenges within an organization. If an organization does not reduce or eliminate risks in the business environment, at the time of this writing, organizations may not be sustainable.

This research would allow additional research in the comparison of educational leadership traits and Lean Six Sigma soft skills that became a fundamental in training adult learners in many industries, including the educational sector. These leadership traits were important and offered new aspects in other business areas within an organization. Additionally, making these comparisons could lead to refinements and may create opportunities for further research.

## **Effectively Training an Organization**

Lean Six Sigma methodology was best implemented when an organization employed knowledgeable Black Belts and Green Belts, terms referring to the level of knowledge and Lean Six Sigma certification. Having Black Belts and Green Belts was one of the most important elements in training Lean Six Sigma in an organization. The entire organization would benefit by training each employee. However, it was not an easy task to train an entire organization or to ignore the cost associated; but over time, it could be achieved, and benefits of the training would be realized, and the cost associated would be diminished. The cost avoidance would be utilized by the trained employees and saved costs recognized by eliminating external consultants. It was vital to train the entire workforce to achieve desired success (Rampersad & El-Homsi, 2007, p. 209).

There were several reasons why leadership may not succeed in Lean Six Sigma:

- Leadership may have been trained in the Lean Six Sigma methodology, and executives begun to use managers who were not fully trained and did not have the right resources or the understanding about the deployment to be successful.
- 2) If the entire organization was not involved and there were no alignment and personal goals for employees, leadership would be unsuccessful. The main reason Toyota Production System (TPS) Lean Six Sigma was developed to make sure the entire organization was involved to possibly be successful, prior to a deployment of Lean Six Sigma. (Rampersad & El-Homsi, 2007, p. 209)

Individual learning was not solely limited to classroom instruction. There were many ways of teaching and training. Successful learning programs in an organization were related to strategic learning and focused on the organization's long-term plans. All learning services should be based on a well-documented and operational needs assessment. The learning outcomes of any assessment should be identified initially, upfront and should be used to show the program's success (O'Connor, Bronner, & Delaney, 2007, p. 28).

Competencies are vital skills needed, especially interpersonal skills meant to build trust and seek strategies that communicated effectively by influencing executives on the value of learning strategies. Personal competencies should be adaptable to changing situations and continuous learning for one's own personal development (O'Connor et al., 2007, p. 21).

# The Importance of Training

In the business environment, at the time of this writing, employees had much greater expectations when it came to work-life balance; which included fair workplace treatment, democracy, and diversity within an organization. There were more opportunities for participation and discussion in training new skills, technology, and efficient personnel that promoted better employment relations. These opportunities, including policies and best practices, provided better social and leisure facilities, than many years in the past (Mullins, 2005, p. 164).

In any organization, every process, which included employee training, Human Resource, and the development of products could be affected by the transformation. The transformation and strategies of an organization must identify the power of data and information that existed. All ranges, such as employees' interactions with websites, file cabinets, desk drawers, databases with important information, and the experience of employees would be affected by the transformation. Additionally, any of the strategies, employee training, Human Resources policies, and development of products, could be considered intellectual capital and valuable assets, but these strategies must be leveraged for competitive advantage (Mullins, 2005, p. 19). It was important to evaluate all training processes in relation to being objective to measure the performance in training. In measuring the performance of training, the focus would be to evaluate the impact, positive or negative, the training processes have on the organization (Mullins, 2005, p. 14). When employees were not properly trained, the disadvantage was that it created additional costs; however, the best method of training employees was to use well-trained employees initially (Huntzinger, 2005, p. 8). There were four principles in training that must be considered, standards must be set, good instruction must be established, continued training must be maintained, and training must not end too soon. It was imperative that each of these four principles became integral parts of any organization's process of business (Huntzinger, 2005, p. 9).

#### Case Studies of Organizations' Transformation to Lean Six Sigma Methodology

This study would look at previous challenges and benefits of organizations that had undertaken this methodology, such as Monsanto (Farson & Keyes, 2006), Boeing (Dirgo, 2006), and Barnes Jewish Christian (BJC) Healthcare (Feldstein, 2007), and the impact on the transformation of these organizations, specifically as it affected the behaviors of all employees in an organization in the business environment, at the time of this writing.

# **Monsanto Corporation**

According to Farson & Keyes (2006), Monsanto implemented specific teams for collaboration purposes. This group's main function was to exchange and share information and become more transparent, which was generally not the norm when it came to competition.

The Failure, Mode, and Effect Analysis (FMEA) tool was used by Pfizer Clinical Trials Excellence initiative and was successful. Monsanto adopted the process improvement tool and used it in the aseptic manufacturing plant that reduced the opportunity of sterility failures. Monsanto implemented several brainstorming collaborative processes to look at issues from different approaches; the collaborative efforts weighted the possible failures by the number of batches that could have been affected. In processing possible failures differently, there were many economical and simple solutions (Farson & Keyes, 2006).

## **General Electric**

According to Breyfogle (2003), an article written for *USA Today* by Jones (1998), stated that the CEO of AlliedSignal defended the Six Sigma methodology, as it was discussed previously that Six Sigma was not as it was professed to be. The article stated other quotes, such as: (1) "[General Electric] GE implemented a no promotion for any leadership position unless leadership had Six Sigma training. GE reported that by year 2000, the implementation of this directive, \$10-\$15 billion dollars increased GE's annual revenue and cost savings" (Jones, 1998, p. 1); (2) Six Sigma "kept AlliedSignal from building an \$85 million plant for the reason of keeping up with demands from customers, instead AlliedSignal had a total savings of \$30-\$50 million a year" (Jones, 1998, p. 1).

GE's CEO, Welch, made a reference that Six Sigma was "the most challenging and potentially rewarding initiative GE had undertaken" (Breyfogle, 2003, p. 4). Six Sigma had its benefits and delivered GE more than \$300 million dollars in operating income. Breyfogle (2003, p. 7) described business strategies of projects with bottom-line results and the return on investment of projects. In training that attained Black and Green Belt certification, hard and soft skills were needed and vital.

#### Boeing

According to Dirgo (2006), in 2004, Boeing had total revenues of \$52.5 billion dollars. In capturing this increased revenue, Boeing expanded the product line and

continuously implemented new technologies to meet their customers' needs. Boeing implemented these new technologies that improved communications, they modified their aircraft to include specifications for the U.S. military, and Boeing built launch vehicles capable to lift more than 14 tons into orbit.

Boeing employed 156,000 employees in 70 countries and in 48 states within the United States. Boeing had a long history of promoting technical excellence and modernization. According to Dirgo (2006), Boeing began utilizing a moving assembly line in combination with Lean manufacturing techniques; however, this new technique had never been implemented previously, and history was made by this implementation. Dirgo (2006) stated that Boeing was in a great position in year 2004 to take bold steps into the future, due to its long history of creating a corporate culture of improvements. Boeing implemented a culture of ongoing and continuous improvement efforts by the creation of a direct by-product of the Boeing Production System.

In implementing the Lean transformation, Boeing was committed to continuously improve, and any threat from competitors would only challenge Boeing into making strong, bold technological improvements to rise above the competition. Boeing implemented the Boeing Production System to make sure all non-value-added steps and processes were eliminated. What created great value for Boeing was the implementation of the Boeing Production System; which implemented the moving assembly lines, which created an easier, continuous production flow that enhanced the quality and efficiency of the production process. This was accompanied by incorporating Lean techniques. By implementing these new processes, Boeing took full advantage of the positive outcome of this new implementation. From 1999 to 2004, Boeing achieved increases in final assembly by 46% in reducing factory cycle time, 59% in the reduction of inventory, 55% in work in process inventory, and lastly, 21% in the footprint reduction. Additionally, Boeing reported increase in final assembly and suppliers of 61% cost of quality reduction (Dirgo, 2006).

### **Barnes Jewish Christian**

According to Feldstein (2007), hospital executives now used the same approach as an automobile plant in Japan for process improvements. Lean Six Sigma was used in the healthcare industry due to better quality, cutting costs, and reducing waste. Many hospitals were then looking in the direction of Lean Six Sigma to fix problems that plagued hospitals for centuries. According to the chief executive of BJC Healthcare, the wait time to be seen by doctors was one of the most crucial problems that frustrated patients.

In utilizing Lean Six Sigma, this methodology examined specific steps to save time and costs, in addition to improving patient customer services. In hospitals utilizing Lean Six Sigma, the savings and reduction of waste increased total savings in the amounts of millions of dollars at each hospital that used Lean Six Sigma. The article stated that a lead performance engineer for one of the local hospitals had previous experience in manufacturing, including assisting Monsanto to implement Six Sigma processes. The lead performance engineer stated when implementing manufacturing methods required careful examination when attempting to apply to the healthcare industry (Feldstein, 2007).

The lead performance engineer added that executives must be careful in the manner used in the healthcare industry, especially when compared with manufacturing methods, due to each individual patient would be different, as in the manufacturing industry, cars were being made identical. The lead performance engineer stated that standardization was the key factor with Lean Six Sigma that was also needed in the healthcare industry that gained additional savings. The article stated that BJC was successful in using Lean Six Sigma and it partnered with United Healthcare, an insurer, to make a more efficient billing system, which was a successful partnership (Feldstein, 2007).

BJC began another project in the fall of 2007, focused on patients that fell with injuries, in three divisions of oncology. In looking at Lean Six Sigma, executives wanted to examine this project and to decrease patient falls. In using Lean Six Sigma, the proposed goal was to decrease patient falling by 50% and patients with injuries by 30%. BJC proposed to accomplish this process improvement by implementing a Rapid Improvement Event (RIE), which is the same meaning as a Kaizen (Blitz) Lean Event. This event was chosen due to the hospital's use of Lean Six Sigma methodologies. When this method was utilized, it resulted in a 22% decrease.

## **Leadership Educational Effectiveness**

The following is a narrative description and explanation of the Leadership Educational Effectiveness included in the Appendices (B, B-1, B-2, B-3, B-4, C).

## **Introduction to Appendices Related to Question 1**

*Competencies of an Educator of Adults*. The Competencies of an Educator of Adults listed 54 statements. This included 45 statements taken from the MIPI (Appendix B), five Organizational Learning Capabilities – Elements of its Meaning: 1) experimentation; 2) risk-taking; 3) interaction with the external environment; 4) dialogue, and 5) participative decision-making; and, four Competencies/Management Strategies of Visionary Leadership (Appendix B-4). These included: 1) management of attention through vision; 2) management of meaning through communication; 3) management of trust through positioning; and 4) management of deploying the self through positive self-regard-knowing themselves, their strengths and nurturing them; and the Wallenda Factor – capacity for concentration on the intention, the task, and the decision. This instrument was one of several associated with effectively training and educating employees.

*Modified Instructional Perspectives Inventory*. The Modified Instructional Perspectives Inventory (MIPI) listed 45 statements beginning or seasoned teachers of adults may or may not possess at a given moment. These 45 statements were distributed among seven factors of the instructional perspectives inventory traits: 1) Teacher Empathy with Learner, 2) Teacher Trust of Learners, 3) Planning and Delivery of Instruction, 4) Accommodating Learners Uniqueness, 5) Teacher Insensitivity/Sensitivity toward Learners, 6) Learner-Centered (Experienced-Based) Learning Process, and 7) Teacher-Centered Learning Process (Appendix B-2). This instrument was one of several associated with effectively training and educating employees. The MIPI instrument was established by Henschke (1989). The MIPI instrument has been validated for reliability three times and has been used in 26 doctoral dissertations (Appendix H) in higher education.

*Organizational Learning Capabilities*. Forty-five statements taken from the MIPI (Appendix B) were distributed among seven factors of the instructional perspectives inventory traits: 1) Teacher Empathy with Learner, 2) Teacher Trust of Learners, 3) Planning and Delivery of Instruction, 4) Accommodating Learners

Uniqueness, 5) Teacher Insensitivity/ Sensitivity toward Learners, 6) Learner-Centered (Experienced-Based) Learning Process, and 7) Teacher-Centered Learning Process (Appendix B-2).

These seven factors were merged with five Organizational Learning Capabilities (OLC) Elements of its Meaning: 1) experimentation; 2) risk-taking; 3) interaction with the external environment; 4) dialogue; and 5) participative decision-making.

*Leadership Strategies for Taking Charge in Andragogy*. The Leadership Strategies for Taking Charge (Appendix B-3) listed four Competencies/Management Strategies of Visionary Leadership (Appendix B-4): 1) management of attention through vision; 2) management of meaning through communication; 3) management of trust through positioning; and 4) management of deploying the self through positive selfregard-knowing themselves, their strengths and nurturing them; and the Wallenda Factor – capacity for concentration on the intention, the task, and the decision.

These were merged with seven factors of instructional perspectives inventory traits: 1) Teacher Empathy with Learner, 2) Teacher Trust of Learners, 3) Planning and Delivery of Instruction, 4) Accommodating Learners Uniqueness, 5) Teacher Insensitivity/Sensitivity toward Learners, 6) Learner-Centered (Experienced-Based) Learning Process, and 7) Teacher-Centered Learning Process (Appendix B-2).

*The 4 Competencies of Leadership*. The Visionary Leadership competencies (Appendix B-4) were initially developed by the interviews of 90 CEOs by Bennis and Nanus (2007) and were used with the MIPI (Appendix B-1). Each of these competencies were noted as important traits to successfully educate adult learners (Appendix B-4): 1) management of attention through vision; 2) management of meaning through

communication; 3) management of trust through positioning; and 4) managing of deploying the self through positive self-regard-knowing themselves, their strengths and nurturing them; and the Wallenda Factor – capacity for concentration on the intention, the task, and the decision.

These competencies were used in the comparison with the prominent soft skills (Appendix C) of the LSST in educating adult learners. The MIPI instrument was a vital tool to understand leadership traits. These instruments were established by Henschke (1989) and validated three times, and had been used in 26 doctoral dissertations (Appendix H) in higher education (Henschke, 2013). These instruments were based on Appendices B, B-1, B-2, B-3, and B-4 of the original research conducted with the MIPI. These are the instruments that were used in the literature review background for use in this research study.

*Prominent soft skills of Lean Six Sigma Trainers*. The prominent soft skills of LSSTs were researched as noted skills needed to train adult learners the Lean Six Sigma methodology in a training program. These soft skills were used in the comparison with the prominent competencies for effectively educating adult learners (Appendix B; Appendix C). Competencies considered were: 1) vision, 2) leadership, 3) empowerment, 4) communication, 5) influence, and 6) testing.

#### Leadership Traits Associated with Effectively Educating Adults

In this research, leadership competencies and skills were compared with the Lean Six Sigma soft skills that were important in educating adult learners in the business environment, at the time of this writing. These leadership skills were traits highlighted to adequately train adult leaders in an organization. In further research, the prominent leadership competencies, in training adult learners, were vitally important, with empathy being a key attribute to have. Empathy and charisma were closely related; however, some leaders possessed empathy, while others did not, however, they were still considered good leaders. It was also noted, "that the leaders who did not possess empathy, did very little to inspire others" (Bennis, 2009, p. 148).

Many people, especially those who were talented, would not remain at any organization unless they were viewed with certain characteristics by their leader. Although they may remain with the organization, some people witnessed leaders demonstrating certain unfavorable traits, thus hindering their loyalty to the leaders and to the organization (McLemore, 2014, p. 3).

There were several aspects of leadership: 1) If one could not manage, one could not be an effective leader; which included, prioritization, assigning people to the right jobs, running projects with timelines and budgets, and planning and executing to achieve success. 2) Those who led organizations, for the most part, exhibited great intelligence. Most leaders could take in large amounts of information quickly and could communicate the information. The ability to process information was a vital component of being intelligent, which was a needed attribute of leadership (McLemore, 2014, p. 2).

According to Bennis (1984, p. 15), a study was conducted of 90 leaders based on finding common traits among those leaders and what made them successful and effective leaders. These leaders were categorized into two sections: Sixty from corporations and 30 from the public sector. Bennis' (1984) goal was to find leaders who possessed good leadership abilities, not just being "good managers" (p. 14). Bennis (1984) stated that both roles were equally as important; however, they were both very different (p. 16). He sought leaders who affected the culture of their organizations and created and maintained values (Bennis, 1984, p. 16).

Leaders may come in many shapes and sizes; however, they must share many of the same skills, if not all. The first vital skill was to possess a guiding vision. A visionary could achieve greatness, if they had a clear idea what they would like to do professionally for the organization. The leader must be prepared to have a plan when faced with setbacks and failures (Bennis, 2009, p. 33). The second equally important skill was to possess passion. Leaders who possessed and communicated passion, could give hope and inspire others. The third important skill to possess was integrity (Bennis, 2009, p. 34).

According to Bennis (2009), integrity was divided into three major parts: Selfknowledge, Candor, and Maturity. Self-knowledge was very important, as a leader, one must know themselves, their shortcomings and their strengths to lead an organization (p. 35). Candor was important, as it was the key to self-knowledge. Leaders must be honest to themselves and to others. Lastly, they must possess maturity. All leaders must be able to have experience and growth by learning from others, being observant, and become capable of working with others within an organization (Bennis, 2009, p. 35).

#### **Prominent Traits for Effective Leadership**

Leadership was a critical foundation of modern society in many organizations in the business environment, at the time of this writing. There were many different reasons why leadership was a vital characteristic that was needed in any organization: 1) Leaders were responsible for the overall effectiveness of an organization. The successes and failures lie on the shoulders of all leaders in an organization. 2) When constant changes took place in an organization, leaders took the reins and restored stability and inspired others. 3) Unfortunately, there were several unscrupulous leaders whose integrity was called to judgement; therefore, the integrity of leaders was brought to the forefront, and that led to several stipulations and rewriting of many vague policies and regulations (Bennis, 2009, p. 5).

Bennis (2009) further identified the importance of having leadership saying, If one person was on a deserted island, they would be able to manage, if two people were on that same island, again it would be manageable, if they were compatible, and however, once there were three or more people, someone would need to take the lead. (p. 33)

Regardless of the collaborative environment of most organizations, someone must take the lead (Bennis, 2009, p. 4).

After several years of Bennis' (2009) study, he could define with certainty four competencies evident in each of the 90 leaders (Appendix B-4; Bennis, 2009, p. 5). The four competencies and their characteristics are listed.

## Management of Attention through Vision:

- Make people want to join in with her/him
- Enrolls people in compelling vision that brings others to a place they have not been before
- Does not waste people's time
- Know exactly what (s)he wants
- United others with her/his intention and outcome, goal or direction

# ANDRAGOGY AND LEAN SIX SIGMA

• Her/his intentions (vision) always evident

# Management of Meaning through Communication:

- Makes dreams apparent to others
- Aligns people with her/his dreams
- Uses metaphors clear to others and with which people can identify
- Makes ideas tangible and real so people can support them
- Creates meaning, not merely explanation or clarification of a goal
- Integrate facts, concepts, anecdotes into meaning for the public
- Get their people to understand and support their goals in a variety of ways

# Management of Trust through Positioning:

- Is reliable, constant, focused and a piece can be counted on and would not shift positions
- It is clear where he/she is coming from and what he/she stands for, even though others may disagree with it.

# Management of Deployment of Self:

- Knows her/his skills and deploys them effectively
- Know themselves, their strengths, and nurture them
- Concentrates on the intention, the task, and the decision
- Unacquainted with the concept of failure
- Learn from and use something that does not go well
- Concentrates on winning, not on <u>not</u> losing

## **Organizations Investing in Employee Training**

People who had specific training were in great demand (Merriam & Bierema, 2014, p. 10). Adult learners were very important as adult educators. Whether adults were learning new techniques or new equipment in the business environment, regardless of their profession the practice of knowing everything one needed to know about the subject and most importantly about the adult learner themselves, was vital to engagement with adult educators (Merriam & Bierema, 2014, p. 11).

In any organization that focused on learning, training, and educating employees, executives and managers must work together for common goals and the mission of an organization. All employees must share accountability for each learning or training program. The LSSTs were more than just a deliverer of instruction. They would be considered a change agent, totally relying on a host of skills that included teaching, training, instructional design, mentoring, and in some cases, counseling (O'Connor et al., 2007, p. 5).

According to Isenberg (2012, p. 150), the business and education sector each had change models, but both were compared to as oil and water. Soft skills were more common in earlier years and were considered more useful in the business sector as being closely related to human relations; which was the basis for relationships (Kamin, 2013, p. 8).

According to a study conducted in 2006, it was revealed that out of six major companies with over 400 participants rated soft skills as being important skills. Soft skills were readily being used by fortune 500 companies as it represented the continuous changing trends of society and the business sector (Kamin, 2013, p. 9). Once it was noted that soft skills were related to development and personal growth, they became critical to the business sector.

**Business Process Improvement Survey**. The Business Process Improvement Survey (Appendix D) was used to capture the research responses provided by 30 anonymous participants of the Lean Six Sigma training program at Monsanto Company. The Business Process Improvement Survey (Appendix D) was related to Research Question 2 and listed 15 questions that reviewed the behavioral, technical, and social aspect of a training program. These questions were also developed to understand the level of satisfaction of the program and gained knowledge if improvements were needed, according to the participants. This information could further validate this subject matter of known researchers, such as Furterer (2009, p. 385) and Taghizadegan (2013, p. 106) in understanding the benefits of Lean Six Sigma in an organization.

This Business Process Improvement Survey (Appendix D) instrument provided important information that would suggest the level of satisfaction for each learner of the Lean Six Sigma training program. After the completion of each Lean Six Sigma training program, an evaluation of the level of satisfaction was assessed to improve the existing program, to offer additional tools, or to provide additional curriculum for the participants. After the assessment, the metrics determined the percentage of participants successful in completing the training and who received their Green Belt or Black Belt certification.

The Business Process Improvement Survey (Appendix D) provided data regarding, 1) participation in Business Process Improvement training, 2) specifying training, 3) role during Business Process Improvement training, 4) LSS trainer knowledgeable of training materials, 5) rating the LSS trainer's knowledge and professionalism, 6) rating of training and material, 7) format of desired training, 8) recommendation for future training, 9) certification received, 10) support from manager, 11) expectation of training 12) expectations met, 13) recommended changes of the training program, 14) currently using training tools and, 15) overall level of satisfaction of the training, and gender of participants.

There were five categories assigned to question 15 of the anonymous electronic course evaluation survey; 1) very satisfied, 2) somewhat satisfied, 3) satisfied, 4) somewhat dissatisfied, and 5) dissatisfied. These categories indicated the highest scoring most prominent in the level of satisfaction of the training program.

LSS Trainers' Beliefs, Feelings, and Behaviors. Beliefs, Feelings, and Behaviors were noted in the approved IRB Application of this research dissertation that reflected three parts, beliefs, feelings, and behaviors of beginning or seasoned LSS trainers of adults may or may not possess at a given moment (Kheang, 2018). Appendix F included nine additional items over and above the 45 items in the MIPI categories for a total of 54 items. These included five Organizational Learning Capabilities – Elements of its Meaning: 1) experimentation; 2) risk-taking; 3) interaction with the external environment; 4) dialogue, and 5) participative decision-making.

The Beliefs, Feels, and Behaviors also included four Competencies/Management Strategies of Visionary Leadership: 1) management of attention through vision; 2) management of meaning through communication; 3) management of trust through positioning; and 4) management of deployment of self through positive self-regardknowing themselves, their strengths and nurturing them; and the Wallenda Factor – capacity for concentration on the intention, the task, and the decision. These also included seven factors of instructional perspectives inventory traits: 1) Teacher Empathy with Learner, 2) Teacher Trust of Learners, 3) Planning and Delivery of Instruction, 4) Accommodating Learners Uniqueness, 5) Teacher Insensitivity/ Sensitivity toward Learners, 6) Learner-Centered (Experienced-Based) Learning Process, and 7) Teacher-Centered Learning Process (Appendix B-2).

LSS Trainer's Modified Instructional Perspectives Inventory. The Modified Instructional Perspectives Inventory, listed 45 statements from Competencies of an Educator of Adults (Appendix B), and included five Organizational Learning Capabilities – Elements of its Meaning: 1) experimentation; 2) risk-taking; 3) interaction with the external environment; 4) dialogue, and 5) participative decision-making, and also included with four Competencies/Management Strategies of Visionary Leadership: 1) management of attention through vision; 2) management of meaning through communication; 3) management of trust through positioning; and 4) management of deploying the self through positive self-regard-knowing themselves, their strengths and nurturing them; and the Wallenda Factor – capacity for concentration on the intention, the task, and the decision.

Appendix F-1 also included seven factors of instructional perspectives inventory traits: 1) Teacher Empathy with Learner, 2) Teacher Trust of Learners, 3) Planning and Delivery of Instruction, 4) Accommodating Learners Uniqueness, 5) Teacher Insensitivity/Sensitivity toward Learners, 6) Learner-Centered (Experienced-Based) Learning Process, and 7) Teacher-Centered Learning Process (Appendix B-2).

#### Merging MIPI with Leader Strategies for Taking Charge for LSS Trainers.

The merging the Modified Instructional Perspectives Inventory with Leader Strategies for

Taking Charge for LSS Trainers (Appendix G) listed 45 statements from Competencies of an Educator of Adults (Appendix B), with five Organizational Learning Capabilities – Elements of its Meaning: 1) experimentation; 2) risk-taking; 3) interaction with the external environment; 4) dialogue, and 5) participative decision-making, and included four Competencies/Management Strategies of Visionary Leadership: 1) management of attention through vision; 2) management of meaning through communication; 3) management of trust through positioning; and 4) management of deploying the self through positive self-regard-knowing themselves, their strengths and nurturing them; and the Wallenda Factor – capacity for concentration on the intention, the task, and the decision.

A merge with six LSS soft skills, and seven factors of instructional perspectives inventory traits was also included in the total of 54 items: 1) Teacher Empathy with Learner, 2) Teacher Trust of Learners, 3) Planning and Delivery of Instruction, 4) Accommodating Learners Uniqueness, 5) Teacher Insensitivity/Sensitivity toward Learners, 6) Learner-Centered (Experienced-Based) Learning Process, and 7) Teacher-Centered Learning Process (Appendix B-2).

**Doctoral dissertation completed using Modified Instructional Perspectives Inventory.** The MIPI is one of the basic instruments that was used for the foundation for most of this research. It has been used in 26 completed doctoral dissertations and has been validated three times for reliability. It is supported strongly in the concept of trust – reciprocal between the trainers and the employees/participants. For full details of what was prepared in this part of the research, review Appendix H.

## Participants' Level of Satisfaction

In a study by So and Brush (2008), it was noted most participants who took surveys chose good or excellent in their learning experiences. However, Jung, Choi, Lim, and Leem (2002) researched that most participants who engaged in online collaborative learning experiences chose even higher levels of satisfaction than when they were engaged with their instructor.

The most important factor of quality learning experiences was student satisfaction (Kuo, Walker, Belland, & Schroder, 2013). There were several factors that became the focus in how these factors affected the perceptions of collaborative learning and student satisfaction: unclear expectations of the instructors, impossible timelines, and exhaustive workloads (Gaddis, Napierkowsk, Guzman, & Muth, 2000; Kitchen & McDougall, 1998).

# Conclusion

In Chapter Two, due to all literature reviewed, the researcher studied the comparison of the LSST soft skills with the Competencies of Effective Educators of Adults, gained understanding of the level of satisfaction of the LSS training program, and decided whether the hypothesis would be supported or not supported and/or further supported the level of satisfaction addressed in Research Question 2.

#### **Chapter Three: Methodology**

#### Introduction

The purpose of this study was to address the following two research questions and one hypothesis:

#### **Research Question 1**

What is the comparison between the identified leadership traits and competencies that are associated with effectively training and educating adult learners and the identified soft skills of the Lean Six Sigma Trainer? Measuring tools related to answering this question were: Competencies of an Educator of Adults (Appendix B), Modified Instructional Perspectives Inventory (MIPI) (Appendix B-1), Merging the Modified Instructional Perspectives Inventory with Organizational Learning Capabilities in Andragogy (Appendix B-2), Leaders Strategies for Taking Charge in Andragogy (Appendix B-3), The 4 Competencies of Leadership (Appendix B-4), and Lean Six Sigma Soft Skills (Appendix C).

**Reciprocity of Empathy, Trust, and Sensitivity**. To be effective, the employer needs to combine reciprocity of the 23 elements of empathy, trust, and sensitivity in concert with the ability and potential of employees/participants for the same; to understand the learning/training process and interact with employees/participants effectively, in making the right choices. This reciprocity takes the form of the employer initiating and maintaining the combination of three elements: empathy, trust, and sensitivity, in concert with employees/participants for the same (Appendix J).

Reciprocity - Mutually supportive concepts that seek to combine words and

actions that move increasingly to strengthen words and actions toward

congruency/agreement.

There are three different validations of the MIPI (Appendix B-1) for reliability.

Also, following in Table 1 is the graph form of this information, the seven factors named

and the three dissertations describing the research in which these references of the

validations were conducted.

#### Cronbach's Alpha Coefficients for the Validation of the MIPI

Table 1

MIPI Validity and Reliability Calculations

IPI and the Seven Factors	Alpha	
IPI	.88	
Teacher empathy with learners	.63	
Teacher trust of learners	.81	
Planning & delivery of instruction	.72	
Accommodating learner uniqueness	.71	
Teacher insensitivity toward learners	.78	
Learner-centered learning processes	.72	
Teacher-centered learning processes	.58	

Stanton, C (2005, April). A construct validity assessment of the instructional perspectives inventory (Unpublished doctoral dissertation). University of Missouri-St. Louis, St. Louis. MO.

#### Table 2

1 7	
Supervisor empathy with subordinates	.83
Supervisor trust of subordinates	.86
Planning and delivery of instruction	.79
Accommodating subordinate uniqueness	.79
Supervisor insensitivity toward subordinates	.74
Subordinate-centered learning processes	.76
Supervisor-centered learning processes	.71
Employee's job satisfaction	.79
Employee's intention to remain in the company	.85

Vatcharasirisook's Cronbach's Alpha Test Validity

Vatcharasirisook, V (2011) Organizational learning and employee retention: A focused study examining the role of relationships between supervisors and subordinates (Unpublished doctoral dissertation). University of Missouri-St. Louis, St. Louis. MO.

### Table 3

Moehl	Alpha	Coef	ficients
11100111	1 100 100	0001	100001000

com mpna coefficients		
Modified IPI	.900	
Teacher empathy with learners	.697	
Teacher trust of learners	.853	
Planning and delivery of instruction	.753	
Accommodating learner uniqueness	.721	
Teacher insensitivity toward learners	.704	
Learner-centered learning process	.689	
Teacher-centered learning process	.639	

Moehl, P. (2011, July). Exploring the relationship between Myers-Briggs type and instructional perspectives among college faculty across academic disciplines (Unpublished doctoral dissertation). University of Missouri-St. Louis, St. Louis. MO.

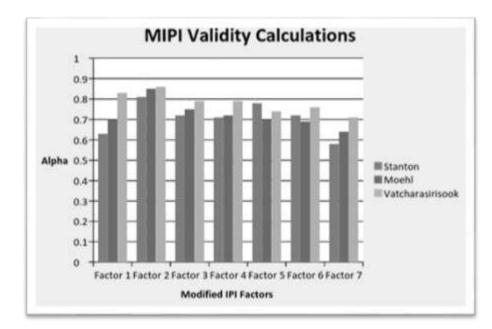


Figure 2. MIPI Validity Calculations Chart.

The MIPI (Appendix B-1) was used with 26 doctoral dissertations to completion,

for which a list is found in (Appendix H).

## **Research Question 2**

What was the level of satisfaction with a Lean Six Sigma training program (conducted by LSSTs) as measured by The Business Process Improvement Training Survey? (Appendix D). To address Research Question 2, the researcher used the Business Process Improvement Training Survey and listed the 15 questions in Appendix D.

#### **Sampling Design**

The setting for this study was at Monsanto Company, located in Creve Coeur, MO. This global organization remained a cutting-edge organization by eliminating waste, creating value, and providing continuous improvement daily. Having training employees in a global format created challenges for this organization. This agricultural corporation was going through a transformation and was seeking ways to create cost savings, cost avoidance, reduced steps in processes, and reduced or eliminated waste. The researcher was a product specialist at Monsanto Company.

The researcher sought a minimum of 20 and a maximum of thirty 30 anonymous course evaluations by employees, as participants in identifying their level of satisfaction with the training program and the LSST. The selection of the anonymous course evaluations was randomly selected.

#### The Lean Six Sigma Instruments

LSS the Business Process Improvement Survey. The Business Process Improvement Training Survey (Appendix D) was used to capture the research responses provided by 30 anonymous participants of the Lean Six Sigma training program at Monsanto Company. The Business Process Improvement Training Survey (Appendix D) was related to Research Question 2 and listed 15 questions that reviewed the behavioral, technical, and social aspect of a training program. These questions were also developed to understand the level of satisfaction of the program and gained knowledge if improvements were needed, according to the participants. This information could further validate this subject matter of known researchers (Furterer, 2009, p. 385; Taghizadegan, 2013, p. 106) in understanding the benefits of Lean Six Sigma in an organization.

This Business Process Improvement Training Survey (Appendix D) instrument provided important information that would suggest the level of satisfaction for each learner of the Lean Six Sigma training program (Appendix D). After the completion of each Lean Six Sigma training program, an evaluation of the level of satisfaction was assessed to improve the existing program, to offer additional tools, or to provide additional curriculum for the participants. After the assessment, the metrics determined the percentage of participants who were successful in completing the training and received their Green Belt or Black Belt certification.

The Business Process Improvement Training Survey (Appendix D) provided the following questions and data regarding: 1) participation - yes/no, 2) training, 3) format of training, 4) LSST knowledgeable - yes/no, 5) how knowledgeable was the trainer, 6) rating of trainer knowledge, 7) preferred format of training, 8) recommendation for future training, 9) certification received, 10) support from manager, 11) expectation of training 12) expectations met, 13) recommended changes of the training program, 14) currently using training material and knowledge – yes/no, and 15) overall level of satisfaction of the training.

There were five categories assigned to question 15 of the business process improvement training survey; 1) very satisfied, 2) somewhat satisfied, 3) satisfied, 4) somewhat dissatisfied, and 5) dissatisfied.

#### Hypothesis:

If Lean Six Sigma Trainers effectively trained employees, employees embraced knowledge transfer based on their level of satisfaction and commitment, as measured by the Business Process Improvement Training Survey responses.

The Hypothesis was designed to address and add to the level of support indicated from the data from Research Question 2 and Appendix D.

The information addressing the Hypothesis was through the Beliefs, Feelings, and Behaviors of LSSTs with adult learners (Appendix F), Adapted Inventory of Competencies of an Educator of Adults (Appendix F-1), which listed the frequency used by the LSSTs with adult learners and Merging MIPI with Leader Strategies for Taking Charge for LSSTs (Appendix G).

#### **Introduction to Appendices Related to the Hypothesis**

LSS Trainers' Beliefs, Feelings, and Behaviors. Beliefs, Feelings, and Behaviors was noted in this research dissertation, that reflected: beliefs, feelings, and behaviors of beginning or seasoned LSS trainers of adults may or may not possess at a given moment (Appendix F), which included nine items over and above the MIPI was added to the categories, five Organizational Learning Capabilities – Elements of its Meaning: 1) experimentation; 2) risk-taking; 3) interaction with the external environment; 4) dialogue, and 5) participative decision-making, which included, five categories: 1) almost never, 2) not often, 3) sometimes, 4) usually, and 5) almost always.

The researcher utilized the 54 statements, which included, 45 statements from Competencies of an Educator of Adults (Appendix B), included five Organizational Learning Capabilities – Elements of its Meaning, and included four Competencies/Management Strategies of Visionary Leadership: 1) management of attention through vision; 2) management of meaning through communication; 3) management of trust through positioning; and 4) management of deploying the self through positive self-regard-knowing themselves, their strengths and nurturing them; and the Wallenda Factor – capacity for concentration on the intention, the task, and the decision.

There were seven factors of the MIPI traits: 1) Teacher Empathy with Learner, 2) Teacher Trust of Learners, 3) Planning and Delivery of Instruction, 4) Accommodating Learners Uniqueness, 5) Teacher Insensitivity/Sensitivity toward Learners, 6) Learner-Centered (Experienced-Based) Learning Process, and 7) Teacher-Centered Learning Process (Appendix B-2), with the seven factors and scoring in Leader Strategies for Taking Charge – Dimensions/Elements of its Meaning and indicated the highest scoring among those categories that revealed the leadership traits that were most prominent in training adult learners.

The researcher focused on the trainer's behavior, beliefs, and feelings of the adult learner to become familiar with the overall comparison of leadership skills by using the Reciprocity of Trust factors.

#### LSS Trainers' Modified Instructional Perspectives Inventory

The Modified Instructional Perspectives Inventory, listed 54 statements, which listed 45 from Competencies of an Educator of Adults (Appendix B), included five Organizational Learning Capabilities – Elements of its Meaning, and four Competencies/Management Strategies of Visionary Leadership. The researcher focused on (Appendix F-1) that revealed the frequency of each of these leadership traits and soft skills presented during a three day training of the LSS Master Black Belt trainers. Appendix F-1 was modified for this research and included the OLC and the Visionary Leadership- Management of Meaning (Appendix B-4). This appendix was the result of Competencies of an Educator of Adults, 45 items, five OLC, and four Leaders Strategies used in each of the MIPI inventories (Appendix B-1; Appendix B-2; Appendix B-3). These appendices focused on the frequency of the 54 competencies analyzed with the soft skills during observation in the trainer's behavior, beliefs, and feelings of the adult learner (Appendix F) and became familiar with the overall comparison of leadership skills by using the Reciprocity of Trust factors.

#### Merging MIPI with Leader Strategies for Taking Charge for LSSTs

The merging of the Modified Instructional Perspectives Inventory with Leader Strategies for Taking Charge for LSS Trainers (Appendix G) listed 45 statements from Competencies of an Educator of Adults (Appendix B), with five Organizational Learning Capabilities – Elements of its Meaning: 1) experimentation; 2) risk-taking; 3) interaction with the external environment; 4) dialogue, and 5) participative decision-making, and included four Competencies/Management Strategies of Visionary Leadership: 1) management of attention through vision; 2) management of meaning through communication; 3) management of trust through positioning; and 4) management of deploying the self through positive self-regard, knowing themselves, their strengths and nurturing them; and the Wallenda Factor – capacity for concentration on the intention, the task, and the decision. Merged with six LSS soft skills, and seven factors of instructional perspectives inventory traits: 1) Teacher Empathy with Learner, 2) Teacher Trust of Learners, 3) Planning and Delivery of Instruction, 4) Accommodating Learners Uniqueness, 5) Teacher Insensitivity/Sensitivity toward Learners, 6) Learner-Centered (Experienced-Based) Learning Process, and 7) Teacher-Centered Learning Process (Appendix B-2), and with the seven factors and scoring the highest rating of Organizational Learning Capability Dimensions - Elements of its Meaning that was most prominent in educating adult learners, also, scoring the highest rating of LSS soft skills that was most prominent in training adult learners.

This instrument was one of several associated with effectively training and educating employees. This MIPI instrument had been validated three times and had been used in 26 doctoral dissertations (Appendix H) in higher education.

# Doctoral Dissertation Completed Using Henschke's Modified Instructional Perspectives Inventory

The MIPI is one of the basic instruments used for the foundation for most of this research. It had been used in 26 completed doctoral dissertations and validated three times for reliability. It was supported strongly in the concept of trust – reciprocal between the trainers and the employees/participants. For full details of what was prepared in this part of the research, review Appendix H.

#### Methodology and Research Design

This study used a purposive sample for this qualitative research method (Creswell & Plano Clark, 2011, p. 173). This method allowed researchers to intentionally focus on participants who had experienced the central phenomenon of the key concept being explored in the study (Creswell & Plano Clark, 2011, p. 174). This method was a non-probability method in collecting data and did not reveal procedures for statistical purposes in the analysis of the course evaluations. This research consisted of a qualitative study (Fraenkel, Wallen, & Hyun, 2012 p. 426), which investigated and contrasted identified leadership traits with the soft skills of the LSST. The researcher understood the limitation of using a purposive sample in data collection, as the findings may not represent the entire population of employees. The research study was an analytical comparison of literature review and use of data previously collected by the Business Process Improvement Training Survey results.

#### Methods, Sampling, & Participants

The researcher used Competencies of an Educator of Adult Learners (Appendix B-1), Modified Instructional Perspectives Inventory (MIPI) (Appendix B-2), Merging of seven factors of MIPI with Five Dimensions of Organizational Learning in Andragogy (Appendix B-3), four Strategies of Leaders Who Take Charge (Appendix B-4), the 4 Competencies of Leadership (Appendix C), and Lean Six Sigma soft skills (Appendix D), and a sample of 30 anonymous electronic course evaluation surveys from Monsanto Company. An outline of the Conceptual Framework of the study is found in Figure 1.

#### **Methodology Procedure**

The researcher investigated information from all appendices that related to literature and identified leadership educational traits and competencies associated with effectively training employees. These leadership traits would be compared to the identified Lean Six Sigma soft skills of the LSST. The Competencies of an Educator of Adults measure listed 54 statements (Appendix B; Appendix B-1; Appendix B-2; Appendix B-3) listed 45 statements (Henschke, 2013); however, in the frequency (Appendix F-1) of how the trainer was viewed by the researcher with regard to each of these statements was evident during the Lean Six Sigma training program. The results of the anonymous electronic course evaluations were recorded by the trainer, the Master Black Belt. The 4 Competencies of Leadership (Appendix B-4) presented itself as the Visionary Leadership traits most prominently used by many top Fortune 500 companies (Bennis, 1984, p. 26).

The Beliefs, Feelings, and Behavior instrument (Appendix F) was modified and listed 54 statements reflecting beliefs, feelings, and behaviors that were applied to provide a learning environment for employees as adult learners and compared those of effective leaders' traits with noted frequencies (Appendix F-1). This instrument that was used during the Lean Six Sigma training program was completed by the researcher.

The researcher focused on the trainer's behavior, beliefs, and feelings of the adult learner and to become familiar with the overall comparison of leadership skills, such as the seven factors of the MIPIs: (1) Teacher Empathy with Learners, (2) Teacher Trust of Learners, (3) Planning and Delivery of Instruction, (4) Accommodating Learner Uniqueness, (5) Teacher Insensitivity toward Learners, (6) Teacher Sensitivity toward Learners, (7) Learner-Centered Learning Process, and (8) Teacher-centered Learning Process, that were evident during the Lean Six Sigma training program, and indicated the highest scoring among those categories that revealed the leadership trait and the LSS soft skill that was most prominent in training adult learners. This instrument was one of would be related to the literature review of Lean Six Sigma Trainers effectively training adult learners in Lean Six Sigma methodology.

#### **The Research Site**

Monsanto was the setting choice for this research study. Monsanto was a global entity located in Creve Coeur, Missouri.

#### **Data Collection**

The Business Process Improvement Training Survey (Appendix D) provided the data regarding: 1) participation - yes/no, 2) training, 3) format of training, 4) LSST knowledgeable - yes/no, 5) how knowledgeable was the trainer, 6) rating of trainer knowledge, 7) preferred format of training, 8) recommendation for future training, 9) certification received, 10) support from manager, 11) expectation of training 12) expectations met, 13) recommended changes of the training program, 14) currently using training material and knowledge – yes/no, and 15) overall level of satisfaction of the training.

Data collected by an anonymous electronic course evaluation survey (Appendix D) captured demographics, such as gender, expectations, level of satisfaction, and certification. All data collected from the Business Process Improvement Training survey (Appendix D) by the researcher, was analyzed for differences and commonalities (Creswell & Plano-Clark, 2011, p. 173). The researcher coded each of these categories and recoded, if necessary. For this research, the best method to collect data was from an electronic survey; which also captured if a participant utilized the Lean Six Sigma training program previously. All data collected will be retained for three years. At that time, the researcher will destroy all documents.

The data collected for this research were separated into three components related to training: 1) to identify and compare leadership traits with Lean Six Sigma Trainer traits, 2) the focus would be on leadership traits that were associated with being able to effectively educate adult learners and contrasted with Lean Six Sigma Trainer soft skills, and 3) how successful was the Lean Six Sigma training program as measured by course evaluations of 30 anonymous electronic surveys?

This research was guided by all data collected and the results could provide opportunities for improvement(s), no improvement needed, or to highlight other areas of concern.

#### **Analysis Procedures**

The researcher analyzed data collected in this study; which was a vital part of the research; however, the analysis of the collected data was what gave the research better clarity and meaning. The process that followed was used by the research for this study (Creswell & Plano-Clark, 2011, p. 174)

The researcher collected 30 course evaluations from the Business Process Improvement Survey (Appendix D), read all course evaluations to gain knowledge of each participant, investigated differences and commonalities of each course evaluation, compared the data, and developed categories for differences and commonalities of the leadership traits and the LSS soft skills, as indicated in Chapter Four.

#### Conclusion

In Chapter Three, the study focused on the research method used and the analysis of the Business Process Improvement Survey used to capture valuable data, and described the participants, the instrumentation, the method of collecting data, and the analysis of the level of satisfaction measured by participants trained by LSSTs. Chapter Four reports results.

#### **Chapter Four: Results**

#### Introduction

The purpose of this case study was to investigate identified educational leadership traits and competencies associated with effectively training employees. These leadership traits and competencies were compared to the identified soft skills of the LSST. The role of the researcher was also to assess the perceived level of satisfaction by the employees' course evaluations of the Lean Six Sigma training program at Monsanto. This research may offer opportunities for improving the Lean Six Sigma training program at Monsanto. The data from the research addressed two major research questions and one hypothesis, as follows:

#### **Research Questions and Hypothesis:**

**Research Question 1**. What is the comparison between the articulated leadership traits and competencies that are associated with effectively training and educating adult learners and the articulated soft skills of the Lean Six Sigma Trainer?

**Research Question 2**. What is the level of satisfaction with Monsanto's Lean Six Sigma training program, as it relates to the electronic course evaluation survey results?

**Hypothesis**: If Lean Six Sigma Trainers effectively trained employees, employees would embrace knowledge transfer based on their level of satisfaction and commitment, as measured by the Business Process Improvement Training Survey responses.

Each of these two research questions and the hypothesis will be addressed in turn throughout Chapter Four. Research Question 1 results will be a separate section, with several sub-sections. Research Question 2 results will address the level of satisfaction with the Monsanto training program. However, the data addressing the Hypothesis was framed to additionally support and enhance the level of satisfaction derived from the results of Research Question 2.

# Statements and Comparisons: The Lean Six Sigma Trainer and the Educator of Adults - Vision

This section lists, in order, each of the LSST competencies: Vision, Leadership, Empowerment, Communication, Influence, and Testing. Within each of these competencies, there is a slightly different order presented. The following sequence will be presented on Vision: Overall comparison of LSST elements and EOA, LSST competencies, EOA Leaders Strategies for taking charge, EOA management of attention through vision, EOA management of meaning through communication, EOA management of trust through positioning, EOA management of deploying the self through positive self-regard and the Wallenda factor, EOA modified instructional perspectives inventory (MIPI), EOA through merging the MIPI with organizational learning capabilities, and Gaps and comparisons between the LSST and the EOA.

#### Vision

#### **Overall Comparison of LSST Vision and EOA Vision**

Table 4 provides a concise listing of the LSST vision and the Educators of Adults vision.

#### Vision Narrative

*LSST competencies* – *Vision*. In the LSS soft skill vision, the only things that are said about vision was that it must be consistent and persistent in both word and deed.

## Table 4

<u>Comparisons (LSST Vision – EOA Vision</u> Comparison of Competencies of Lean	Comparison of Competencies of
Six Sigma Trainer (LSST) Vision:	Educators of Adult's Vision:
Six Sigina Trailer (LSST) Vision.	Educators of Adult 5 vision.
The corporation's vision	-Clear about whose vision – of the company
-Communicated by trainer, which helps	-So, exciting it draws people to enroll in it
-Changes behavior of trainers and	-Two main concepts by example
employees	a. quality
-Communicating the vision effectively	b. dedication, which generates
-Sets strategies to accomplish vision	-Love of work
-Vision consistent & persistent in word &	-Energizes high performance
deed	-Management of attention through vision
	-Management of meaning through
	communication
	-Management of trust through positioning
	-Managing the deployment of self through
	a. Positive self-regard b. Wallenda Factor – focus on goal
	-Overall validity and reliability of the
	Modified Instructional Perspectives Inventory
	(MIPI) is at 90%, which is the top rating
	-The higher an employee/participant scores on
	the overall MIPI, the more productive one is
	-The LSST vision provides much less details
	on the workings and ultimate outcomes of the
	company, then the corporate and public-sector
	Leaders' vision
	-Trust, Empathy, and Sensitivity offers
	increased job satisfaction of employees/
	participants, and in turn, enhances their desire
	to stay with the company or the learning
	situation
	-The Merging of the Organizational Learning
	Capabilities (OLC) with the 45 elements of
	the MIPI (with the 72 matches) serves to
	strengthen and support the productivity of the
	corporation through: Dialogue, Risk-Taking,
	Participative Decision-Making,
	Experimentation, Interaction with the External
	Environment and through Reciprocity
	between and among the 23 elements of the
	MIPI factors

Comparisons (LSST Vision – EOA Vision)

The LSST does not indicate whether the trainer's ability is to change her/his own behavior, or the trainer's ability is to change employees'/participants' behavior. Needless to say, neither comes easily. The LSST must also be able to build buy-in, set strategies, and present visionary leadership. Nonetheless, it does indicate how these (building buyin, setting strategies, and presenting visionary leadership) are to be accomplished.

**EOA Leaders' Four Strategies for Taking Charge – Vision**. In the Leader's Strategy for Taking Charge (Appendix B-3; Appendix B-4), there are more explicit descriptions clarifying (which vision) and/or whose vision is being identified and what needs to happen. The vision of the leader has to be exciting to the point that people enroll in it. The leader's vision has two main concepts connected with it, quality and dedication. The quality of the vision is appreciated intuitively and responded to by employees/participants through feeling and is connected intimately in our lives with the experience of meaning, beauty, and value. The dedication comes about through leaders exemplifying and thus generating in our followers, even love of our work, evoked by quality, with the force that energizes high performance, and facilitates our work.

**EOA Management of Attention through Vision**. The leader manages people's attention through vision. Leaders make people want to join in with her/him, enrolls people in a compelling vision that brings others to a place they have not been before, does not waste people's time, knows exactly what (s)he wants, unites others with her/his intention and outcome, goal or direction, with her/his intentions (vision) always being evident. The leader is seeking to capture the attention of (employee/participant) adult learners by the way s/he presents the content of the vision.

EOA Management of Meaning through Communication – Vision. The leader manages people's meaning through communication and it is noted that leaders make dreams and visions apparent by effective communication, so employees/participants align with them. In addition, leaders must be able to make ideas tangible and real, so employees/participants will understand and support the leaders' goals in different ways. Leaders create meaning to employees/participants, not just explaining or clarifying goals. Leaders integrate facts, concepts, and anecdotes into fulfilling meaning for employees/ participants and the public by effective communication.

EOA Management of Trust through Positioning – Vision. The leader manages employees'/participants' trust through positioning (Even though trust is a part of Visionary Leadership, it is highlighted in the LSST, Leadership section). Trust through positioning is led by leaders to show employees/participants that leaders are reliable, consistent, congruent, and constant with talk and walk matching, not shifting positions. It is clear where this leader is coming from, what s/he stands for, even though employees/participants may disagree with it.

EOA Management of Deploying the Self through Positive Self-Regard and the Wallenda Factor – Vision. The leader manages deployment of her/himself. Visionary leadership traits are also expressed by deploying of the self through positive self-regard and the Wallenda Factor.

*Positive self-regard* - Leaders must be confident in knowing their own skills and deploying/displaying them effectively to employees/participants through: Positive Self-Regard – In knowing themselves, their strengths, and nurturing each of them.

*The Wallenda Factor* - Leaders must demonstrate to employees/participants the capacity for concentration on the actual intention, the task, and the decision prior to starting and during the task. These leaders are unacquainted with the concept of failure. They learn from and use something that does not go well. They also concentrate on 'winning,' not on 'not losing.'

**EOA Modified Instructional Prospective Inventory** – **Vision**. Depicted in the 45 elements of the Modified Instructional Perspective Inventory (MIPI) is the overall validity and reliability of Cronbach's Alpha three times as being at 90% (the top rating). The higher one scores on the overall MIPI (including all seven factors) the more effective s/he is in educating and facilitating the learning of employees/participants. This kind of learning in turn, increases the productivity of the organization. The reciprocity among the 23 elements of empathy, trust, and sensitivity (three factors of the MIPI) offers the opportunity for increased employee/participant job satisfaction and, in turn, enhances their desire to stay with (not leave) the company or the learning situation.

**EOA Merging MIPI with Organization Learning Capabilities – Vision**. This is depicted in the merging of the organizational learning capabilities (OLC) employees/ participants with the MIPI. There are 72 OLC matches with the 45 elements and the seven factors (from Appendix B-1) of the MIPI.

*Dialogue* - an OLC, offers the strongest supports (25 items) to the seven factors of the MIPI.

*Risk-taking* - an OLC, offers the second strongest supports (18 items) to the seven factors of the MIPI.

*Participative decision-making* - an OLC, offers the third strongest supports (11 items) to the seven factors of the MIPI.

*Experimentation* - an OLC, offers the fourth strongest supports (10 items) to the seven factors of the MIPI.

*Interaction with the external environment* - an OLC, offers the least supports (8 items) to the seven factors of the MIPI.

#### Gaps and Comparisons between the LSST and the EOA - Vision

*Gaps of the Lean Six Sigma Trainer's - Vision*: Not clear about whose behaviors the LSST's ability to change was focused, themselves or the adult learners (employees/participants). Did not indicate what communicate effectively means (components) how to coordinate this with other things

- Did not identify strategies to set

*Gaps of the Competencies of Educators of Adults - Vision*: Does not indicate that the vision must be consistent and persistent in both word and deed. Does not talk directly about the leader being able to build buy-in and set strategies which happen by effective communication. Does not say leaders need to have the ability to change behavior – their own and/or that of the employees/participants.

Statements and Comparisons: The Lean Six Sigma Trainer and the Educator of Adults - Leadership

This section lists, in order, each of the LSST competencies: Vision, Leadership, Empowerment, Communication, Influence, and Testing. Within each of these competencies, there is a slightly different order presented. The following sequence will be presented on this subject, Leadership: 1) Overall comparison of LSST elements and EOA, 2) LSST competencies; 3) EOA management of attention through vision, 4) EOA management of meaning through communication, 5) EOA management of trust through positioning, 6) deploying the self through positive self-regard and the Wallenda factor, 7) EOA reciprocity of elements of empathy, trust, and sensitivity, 8) EOA with OLC and five elements of meaning; and 9) Gaps and comparisons between the LSST and the EOA.

#### Leadership

#### Overall comparison of LSST leadership and EOA leadership

Table 5 provides a comparison between LSST leadership and EOA leadership.

#### Leadership Narrative

*LSST Competencies – Leadership*. In the LSS soft skill, leadership is a style that leaders (LSSTs) use to engage and motivate employees/participants and assist them in leadership development. This is crucial to the overall success of an LSS initiative and is critical to training employees/ participants responsible for accomplishing certain goals and objectives. The LSS trainer soft skill, leadership must have the ability to create an environment of passion and pride, with performance being the natural result.

However, it does not indicate whose performance is the result of an environment of passion and pride. The LSS trainer soft skill, leadership must also develop trust, which is critical, and this trust comes from treating employees/participants with respect and fostering positive relationships.

# Table 5

	L /
Comparison of Competencies of Lean	Comparison of Competencies of
Six Sigma Trainer (LSST) Leadership:	Educators of Adult's Leadership:
-Engaging and motivating	-Leader who is driven by a compelling
employees/participants	vision:
-Assist employees/participants in	-Leads employees/participants who want to:
developing their leadership skills	a. join in
-Creating an environment of passion and	b. enrolls and bring them to a new
pride resulting in performance.	place as never before
	-Doesn't waste employees'/participants' time
-Critical to training employees/participants	-Unifies others with the vision, goal, direction
in responsibility for accomplishing	-Creates and communicates meaning that:
certain:	a. makes dreams apparent to others
	b. aligns people with it
-Goals	c. makes ideas real and tangible
-Objectives	d. gets people to support it
-Critical for overall LSST success is	e. helps people understand and
-developing trust which comes from:	support the goals
-Treating others with respect and,	-Leaders generate trust, which is:
-Fostering positive relationships	a. reliable
	b. constant
	c. focused, all of a piece
	d. can be counted on
	e. will not shift position
	f. makes clear where s/he is coming
	from and what it wants, even
	if other disagree with it
	-Leader deploys self by;
	a. Positive Self-Regard (confidence),
	b. Wallenda Factor (focus and
	concentration)
	-Leader practices and exemplifies/
	demonstrates the following elements
	of:
	a. empathy with (5)
	b. trust in $(11)$ and,
	c. sensitivity towards (7),
	her/his
	employees/participants; and,
	-Leader translates/applies and strengthens,
	a. everything s/he does by, b. connecting with
	employees/participants, through
	the framework of the Five
	Organizational Learning
	Capabilities (OLC) and the
	components of its meaning;
	components of its mouning,

# Comparisons (LSST Leadership – EOA Leadership)

 Experimentation,
 Risk-Taking,
 Integration with the External Environment,
 Dialogue, and,
 Participative Decision-Making

EOA Management of Attention through Vision – Leadership. This kind of leadership exemplifies a leader who is driven by a compelling vision that makes employees/participants want to join in with her/him; enrolls and brings employees/ participants to a place they have never been before; does not waste employee's/ participant's time; knows exactly what (s)he wants; unites employees/participants with her/his intention and outcome, goal, or direction; and with her/his intentions (vision) always being evident.

This kind of leadership exemplifies a leader who is driven by a compelling vision which communicates meaning that makes dreams apparent to employees/participants; aligns employees/participants with the leader's dreams; uses metaphors clear to employees/participants with which they can identify; makes ideas tangible and real so employees/participants can support them; creates meaning, not merely explanation or clarification of a goal; integrates facts, concepts, anecdotes into meaning for the employees/participants; and gets their employees/participants to understand and support the leader's goals in a variety of ways.

**EOA Management of Meaning through Communication – Leadership**. This kind of leadership exemplifies a leader who is driven by a compelling vision which positions the leader in a way that generates trust with employees/participants and: is reliable, constant, focused and all of a piece; can be counted on and will not shift

positions; makes clear where s/he is coming from and what s/he stands for, even though employees/participants may disagree with it.

**EOA Management of Trust through Positioning – Leadership**. The leader manages employees'/participants' trust through positioning (Even though trust is a part of Visionary Leadership, it will be highlighted in the LSST, Leadership section). Trust through positioning is led by leaders to show employees/participants that leaders are reliable, consistent, congruent, and constant with talk and walk matching, not shifting positions. It is clear where this leader is coming from, what s/he stands for, even though employees/participants may disagree with it.

**EOA Management of Deploying the Self through Positive Self-Regard and the Wallenda Factor – Leadership**. The leader manages deployment of her/himself. Visionary leadership traits are also expressed by deploying of the self through positive self-regard and the Wallenda Factor.

*Positive self-regard* - Leaders must be confident in knowing their own skills and deploying/displaying them effectively to employees/participants through: Positive Self-Regard – In knowing themselves, their strengths, and nurturing each of them.

*The Wallenda Factor* - Leaders must demonstrate to employees/participants the capacity for concentration on the actual intention, the task, and the decision prior to starting and during the task. These leaders are unacquainted with the concept of failure. They learn from and use something that does not go well. They also concentrate on 'winning,' not on 'not losing.'

EOA Reciprocity of Elements of Empathy, Trust, and Sensitivity – Leadership. *Empathy* – This kind of leader feels fully prepared to present to

employees/participants information on a working project; notices and acknowledges to employees/participants positive changes in them; balances her/his efforts between encouraging employees/participants content acquisition and motivation; expresses appreciation to employees/participants who actively participate in work projects; and promotes positive self-esteem in employees/participants.

*Trust* – This kind of leader purposefully communicates to employees/participants that each is uniquely important; believes that each employee/participant knows what her/his goals, dreams, and realities are like; expresses confidence that the employee/participant will develop the skills each needs; prizes each employee/participant to learn what is needed; feels employees/participants each need to be aware of and communicate her/his thoughts and feelings; enables each employee/participant to evaluate her/his own progress in learning; hears each employee/participant indicate what her/his learning needs are; engages each employee/ participant in clarifying her/his own aspirations; develops a supportive relationship with each employee/participant; experiences unconditional positive-regard for each employee/participant; and respects the dignity and integrity of each employee/participant.

*Sensitivity* – This kind of leader makes certain to understand each employee's/participant's point of view; takes pains and time to get her/his point across to each employee/participant; exercises patience in helping all employees'/participants' progress; overcomes any frustration with employees'/participants' apathy; will use whatever time each employee/participant needs to grasp various concepts; thoroughly allows each employee/participant to ask all questions each need addressed; and resists in her/himself any irritation at employee's/participant's inattentiveness in the learning or work setting.

#### EOA with Organizational Learning Capabilities and five Elements of its

**Meaning – Leadership**. This kind of leadership is where the leaders translates/applies everything s/he does into connecting with employees/participants through the framework of Organizational Learning Capabilities (OLC) and the five Elements/Components of its Meaning, including:

*Experimentation* – Trying new ideas sympathetically, curious about how things work – change in the work process;

*Risk-taking* – Tolerance of ambiguity, uncertainty, learning from mistakes and errors;

*Integration with the external environment* – The whole scope of relationships with the outside world;

*Dialogue* – A process of collective inquiry/communication into the certainties of everyday experiences.

*Participative decision-making* – Which enhances the level of influence, ownership employees/participants have in decision-making (DM) process.

#### Gaps and Comparisons between the LSST and the EOA - Leadership

Gaps of the Lean Six Sigma Trainer's (LSST) Leadership:

- Not clear about whose behaviors the ingredients of the style which engages and motivates employees/participants

- Does not indicate the necessary components that will help

employees/participants in their leadership development – which are:

- Crucial to the overall success of an LSS initiative
- The necessary leadership ability is not identified to:
  - Create an environment of passion and pride
  - With performance being the natural result.
- Furthermore, not indicated is whose performance, is the result of an environment of passion and pride
- On the contrary, it is clear that leadership must develop the critical element of trust with employees/participants which comes from:
  - Treating employees/participants with respect and fostering positive relationships to create an environment of passion and pride
  - Fostering positive relationships; although how this is accomplished is not identified or clarified

Gaps of the Competencies of Educators of Adults - Leadership:

- Does not indicate the elements of style which engages and motivates employees/participants
- Seems to only imply, but not state directly what will help develop

employees'/participants'

- Leadership Development
- Accomplishing goals and objectives
- Crucial elements of success
- Critical responsibility for accomplishment
- Producing an environment of passion and pride, resulting in

performance

- Fostering positive relationships

# Statements and Comparisons Concerning the Lean Six Sigma Trainer (LSST) and the Educator of Adults (EOA) - Empowerment

This section lists, in order, each of the LSST competencies: Vision, Leadership, Empowerment, Communication, Influence, and Testing. Within each of these competencies, there will be a slightly different order presented. The following sequence will be presented on this one, Empowerment: Overall comparison of LSST elements and (EOA), LSST competencies, EOA effect of visionary leadership of vision; EOA OLC elements of its meaning with 45 elements and seven factors of MIPI; EOA visionary leadership of trust; and Gaps and comparisons between the LSST and the EOA.

#### **Empowerment.**

#### **Overall Comparison of (LSST) Empowerment and EOA Empowerment**

Table 6 compares the LSST empowerment to the EOA empowerment.

#### **Empowerment Narrative**

*LSST Competencies – Empowerment*. In the LSS soft skill, empowerment is a result of the kind of leader who actively engages and empowers employees/participants to the point of being accountable for the maintenance of their own work processes. This leader's display of empowerment and engagement are critical organizational goals. This LSS Trainer needs to exemplify/display empowerment and its meaning, which is mutual respect, trust, skill, responsibility in actions, getting results, willingness to share power, collaboration to achieve synergy, and breakthrough results. This trainer does not explain the difference between 'getting results' and 'achieving breakthrough results.

# Table 6

Comparisons (LSSI Empowerment – EOA	
Comparison of Competencies of Lean	Comparison of Competencies of
Six Sigma Trainer (LSST)	Educators of Adult's Empowerment:
Empowerment:	
-Result of the kind of leader who actively	- Empowerment is the effect of the
engages employees/participants in	Competencies of a Visionary
being accountable for their work	Leadership which produces a leader
processes	who exercises/employs the following:
-This leader displaying that engagement of	- Managing employees/participants
employees/participants is critical	Attention through Vision
to empowerment as educational goals	- Managing employees/participants
-This leader displays/exemplifies the	Meaning through
meaning of empowerment:	Communication
- Mutual Respect	- Managing employees/participants
- Trust	Trust through Positioning
- Skills	- Managing the Deployment of
- Responsibility in actions	her/himself thru
- Getting results	*Positive Self-Regard
- Willingness to share power	(Strengths & Nurturing
- Collaboration to achieve	Them)
synergy, and	*Wallenda Factor
breakthroughs	(Intention & Focusing)
-Achieving breakthrough results	Thus, empowerment results as follows:
	- Learning and competence matter
	- Employees/participants are part of a:
	*Community
	*Team
	*Family
	*Unity
	- Work is exciting – pulling, not
	pushing
	- Motivates through identification,
	rather than reward &
	punishments
	- Enhanced through the five strong
	supporting Elements of
	Organizational Learning
	Capabilities (OLC):
	*Experimentation
	*Risk-taking
	*Interaction with the
	External Environment
	*Dialogue
	*Participative
	Decision-Making
	- Coupled with the eleven (11) major
	Comprehensive Pillars of Trust
	comprehensive r mars or Trust

Comparisons (LSST Empowerment – EOA Empowerment)

EOA effect of Visionary Leadership – Empowerment. Manages employees'/ participants' attention through vision - a compelling vision that brings employees/ participants to a place they have not been before; manages employees/participants meaning through communication - making dreams and visions apparent to employees/ participants through communication and getting employees/participants to align with the leader's dreams and visions; manages employees/participants trust through positioning its main determinant is the leader's reliability, constancy, not changing positions on the ideas, and manages the deployment/display of her/himself - through knowing her/his skills and deploying them effectively with employees/participants through Positive Self-Regard and the Wallenda factor.

*Positive self-regard* – In knowing her/himself, their strengths and nurturing them; and,

*The Wallenda Factor* - The capacity for concentration on the actual intention/vision, focusing on the task; and the decision.

When this kind of leader conducts her/his work with employees/participants through the five competencies listed above, empowerment is affected, which means and translates into the following results:

Employees'/participants' feel significant; what they do makes a difference to the success of the organization; what they do has meaning and significance;

Learning and competence matter; learning and mastery are value; employees/participants are valued; mistakes give us feedback and tell us what to do next; Employees/participants are part of a community; where this kind of leadership is, there is a team, a family, a unity; even employees/participants who do not especially like each other feel a sense of community. These kinds of leaders motivate employees/ participants through identification, rather than through rewards and punishments.

Work is exciting to employees/participants; where these kinds of leaders are, work is stimulating, challenging, fascinating, pulling, rather than pushing employees/ participants toward a goal that energizes employees/participants to enroll in an exciting vision of the future;

These kinds of leaders articulate and embody the ideals toward which the organization strives.

EOA OLC Elements of its Meaning with 45 Elements and Seven Factors of MIPI. When a Visionary leader focuses on using the elements of the meaning of the OLC, following is part of the employees'/participants' benefits that accrue. The Organizational Learning Capabilities (OLC) expand as follows through discussion with all parties (stakeholders) concerned about:

*Experimentation* – the degree to which new ideas and suggestions are attended to and dealt with sympathetically; involves trying out new ideas; being curious about how things work; carrying out changes in work processes;

*Risk-taking* – increased tolerance of ambiguity, uncertainty and errors; growth of the important trait of risk-taking in organizations to develop; the organization becomes more effective in accepting and learning from failures and mistakes;

*Integration with the external environment* – helps make the organization become more fertile; the scope of relationships with the external environment is enriched;

organizations enhance their capacity to keep up with the external environment; thus, interaction with the external environment plays a major role in organizational learning and development;

*Dialogue* – A sustained collective inquiry into the processes, the assumptions, the certainties - all of which make up every day experience. A process is used to create an understanding of communication. Therefore, dialogue is a crucial factor for organizational learning,

Participative decision-making –the level of influence employees/participants have in the decision-making process; by supporting participative decision-making, organizations benefit by increasing employment involvement, job satisfaction, organizational commitment, and ownership of decision outcomes.

#### EOA Visionary Leadership of Trust – Empowerment. Purposefully

communicating to employees/participants that each is uniquely important; believing each employee/participant knows what her/his goals, dreams, and realities are like; expressing confidence that each employee/participant will develop the skills s/he needs; prizing each employee/participant to learn what is needed; feeling each employee/participant needs to be aware of and communicate her/his thoughts and feelings; enabling each employee/ participant to evaluate her/his own progress in learning; hearing each employee/ participant, indicate what her/his learning needs are; engaging each employee/participant in clarifying her/his own aspirations; developing a supportive relationship with each employee/participant; experiencing unconditional positive regard for each employees/participant; and, respecting the dignity and integrity of each employee/participant.

#### Gaps and Comparisons between the LSST and the EOA - Empowerment

*Gaps of the Lean Six Sigma Trainer's Empowerment*: - Although Empowerment results from an employer who actually engages employees/participants to be accountable for the maintenance of their own work processes, there is no explanation or details of how this can be accomplished.

There are no details given of the meaning of Empowerment or how it will be accomplished, other than saying it is employers showing mutual respect, trust, skill, responsibility in actions, getting results, willingness to share power, and collaboration to achieve synergy. However, it provides no explanation of difference between 'getting results' and 'achieving breakthrough results.'

*Gaps of the Competencies of Educators of Adults – Empowerment*: - This does not talk about or explain any details of accountability – maintaining their own work processes

Although it provides words and the concept of vision about various kinds of perspectives and actions, it does not make direct connections with results.

# Statements and Comparisons Concerning the Lean Six Sigma Trainer and the Educator of Adults – Communication

This section lists, in order, each of the LSST competencies: Vision, Leadership, Empowerment, Communication, Influence, and Testing. Within each of these competencies, there will be a slightly different order presented. The following sequence will be presented on this one, Communication: Overall comparison of LSST elements and EOA, LSST competencies; EOA Management of Organizational through Communication; EOA with OLC five combined with three of the seven factors of the MIPI with reciprocity: and, Gaps and comparisons between the LSST and the EOA.

#### Communication

*Overall Comparison of (LSST) Communication and EOA Communication* Table 7 provides a comparison of LSST and EOA in Communication.

#### **Communication Narrative**

#### **LSST** Competencies - Communication

In the Lean Six Sigma (LSS) soft skills Communication, the trainer needs to be effective verbally, in writing, in public and private forums. In addition, her/his effectiveness is required in work within small group settings. This effective communication includes understanding and carrying out instructions to employees/participants to the extent that it creates the power of an organization regarding openness, trust, and honest communication. Nonetheless, the LSS did not give any explanation if there is a difference between 'communications' and 'honest communication.' Furthermore, there is an expansion of the LSS trainer's responsibility of defining and communicating the strategy to achieve and maintain quality adopted by the organization. No definition was provided regarding what the strategy is, what the standard(s) are regarding quality that is/are to be achieved and maintained, nor what the standards are that the organization adopted. This articulation provides no explanation or expansion of the meaning of how to create the power of an organization of 'quality,' 'openness,' 'trust,' 'honest communication,' nor the 'strategy to achieve and maintain quality adopted by the organization.' It also provides no differentiation between

'communication' and 'honest communication.' Table 7 includes communication

comparisons.

Table 7

Comparisons	(LSST	Communication	-EOA	Communication)
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Comparison of Competencies of Lean	Comparison of Competencies of Educators
Six Sigma Trainer (LSST)	of Adult's Communication:
Communication:	
-A lot of interesting words and concepts	-Communication - major means and elements
used;	of managing the meaning of the
but little or no definitions or processes	organizational leadership,
are	vision/intention:
defined, identified or 'spelled out'	-This kind of leader is driven to make dreams
-Openness	and visions apparent to
-Trust	employees/participants and the public
-Communication	to the extent that like a magnet, it
-Honest communication	draws them to align with and support
-Quality	the leaders' dreams and visions
-Standards	-This kind of communicative leader uses
-Achieving	metaphors that will make clear, real
-Understanding	and tangible ideas with meaning,
-Carrying out	integrating facts, concepts that will
-Effective communication	garner stakeholders' support for
-Maintenance	leaders' goals in a variety of ways.
-Instructions	-Merges the seven factors of the MIPI with
-Strategy	the five organizational learning
-Articulation	capabilities (OLC).
-Organizational power	
	-Seven MIPI Factors:
	1. Employer's empathy with
	employees/participants
	2. Employers' trust of
	employees/participants
	3. Planning and delivery of
	employers' instructions to
	employees/participants
	4. Accommodating
	employees/participants
	uniqueness
	5. Employer' sensitivity towards
	employees/participants
	6. Employee/participant centered
	learning process (experienced-
	based learning techniques)
	7 Employer-centered learning

7. Employer-centered learning Process

-Five Organizational Learning Capabilities:
1. Experimentation,
2. Risk-Taking,
3. Integration with the External
Environment,
4. Dialogue, and,
5. Participative Decision-Making
-With the organization communicating and
functioning in such a way as to
increase and strongly support
productivity; and;
-Reciprocally intermingling the 23 elements
of empathy, trust, and sensitivity to
mutually and strongly support
employee/participant satisfaction to
increase their desire to stay: increased
productivity, survival and flourishing
may well be anticipated.

#### EOA Management of the Organizational Meaning through Communication.

Communication – Elements of Managing the Meaning of the Organizational Leadership Vision – This kind of leader is driven by a vision makes dreams and visions apparent to employees/participants and the public which gets them to align with those dreams and visions: not only makes dreams apparent to employees/participants; aligns people with her/his dreams; but also uses metaphors clear to others (employees/participants and the public) so that they can support them; makes ideas tangible and real so people (employees/participants and the public) can support them; creates meaning (of the vision), not merely explanation or clarification of a goal; integrates facts, concepts, anecdotes into meaning for the public; and get their people (employee/participants, stakeholders, and the public) to understand and support the leaders goals in a variety of ways.

# EOA with OLC and Its five Elements with three of the seven Factors of the MIPI and Reciprocity: Empathy, Trust, and Sensitivity

Reciprocity is defined as mutually supportive concepts that seek to combine words and actions that move increasingly to strengthen words and actions toward congruency/agreement. Reciprocity means that the employer and employees/participants agree and seek to communicate: Observe, perceive and acknowledge operating by the same criteria.

**Reciprocity of Empathy, Trust, and Sensitivity**. To be effective, the employer needs to combine reciprocity of the 23 elements of empathy, trust, and sensitivity in concert with the ability and potential of employees/participants for the same; to understand the learning/training process and interact with employees/participants effectively, in making the right choices. This reciprocity takes the form of the employer initiating and maintaining the combination of the following three elements: empathy, trust, and sensitivity, in concert with employees/participants for the same.

When combined, the higher the score on the 16 elements of empathy and trust, the more satisfied the employee/participants are with their jobs and learners are with their learning situation. In turn, this results in them wanting to stay with the organization, and this desire is strongly supported by the seven elements in Sensitivity. Following is a list of the 23 Elements that are included in the three factors of the MIPI – Empathy, Trust, and Sensitivity, shown in Table 8.

### Table 8

#### Reciprocity of Empathy, Trust, and Sensitivity

# Factor #1 – Employer Empathy with Employees/Participants:

4. feeling fully prepared to present to employees/participants information on a working project;

12. noticing and acknowledging to employees/participants positive changes in them;

19. balancing her/his efforts between employees/participants content acquisition and motivation;

26. expressing appreciation to employees/participants who actively participate;

33. promoting positive self-esteem in employees/participants.

### Factor #2 – Employer Trust of Employees/Participants:

7. purposefully communicating to employees/participants that each is uniquely important;

8. expressing confidence that employees/participants will develop the skills they need; 16. trusting employees/participants to know what their own goals, dreams, and realities are like;

28. prizing the employees'/participants' ability to learn what is needed;

29. feeling employees/participants need to be aware of and communicate their thoughts and feelings;

30. enabling employees/participants to evaluate their own progress in learning;

31. hearing what employees/participants indicate their own needs are;

39. engaging employees/participants explore their own abilities;

43. developing supportive relationships with her/his employees/participants;

44. experiencing unconditional positive regard for her/his employees/participants;

45. respecting the dignity and integrity of the employees/participants.

#### Factor #5 – Employer Sensitivity toward Employees/Participants:

5. making certain to understand the employees'/participants' points of view;

13. taking pains and times to get her/his point across to employees/participants;

18. exercising patients with employees'/participants' progress;

27. overcoming any frustrations with employees'/participants' apathy;

32. will be using whatever time employees/participants need to grasp various concepts;

36. thoroughly allowing employees/participants to ask all questions they need addressed;

41. resisting in her/himself any irritation at employees'/participants' inattentiveness in the working/learning setting.

#### Gaps and Comparisons between the LSST and the EOA

*Gaps of the Lean Six Sigma Trainer's Communication*: - No demonstrations (Examples) are provided for effective verbal and written communication in public and private forums, including small group settings.

- Effective communication encompasses understanding and carrying out

instructions to employees/participants so that it defines and provides the strategy to achieve and create the organizational power for openness, trust, and honest communication within; all the while maintaining the quality adopted by the organization, without articulating the strategy or standards of organizational quality to be achieved and maintained.

- This provides or clarifies no differentiation between 'communication' and 'honest communication.'

#### Gaps of the Competencies of Educators of Adults' - Communication:

- No examples are provided for verbal or written effective communication.

- No anecdotes given to clarify meanings such as: Quality, Strategy,

Communication, Honest communication, Effective communication, Standards, Openness, Organizational Power.

# Statements and Comparisons Concerning the Lean Six Sigma Trainer and the

## **Educator of Adults – Influence**

This section lists, in order, each of the LSST competencies: Vision, Leadership, Empowerment, Communication, Influence, and Testing. Within each of these competencies, there will be a slightly different order presented. The following sequence will be presented on this one, Influence: Overall comparison of LSST elements and (EOA), LSST competencies; EOA Reciprocity of (Empathy, Trust, Sensitivity) and OLC

elements of its meaning; EOA Leaders Strategies for Taking Charge; and Gaps and

comparisons between the LSST and the EOA.

# Influence

# **Overall Comparison of (LSST) Influence and EOA Influence**

Table 9

Comparisons (LSST Influence – LOA Infl	uchee)
Comparison of Competencies of Lean	Comparison of Competencies of Educators
Six Sigma Trainer (LSST) Influence:	of Adult's Influence:
<ul> <li>-LSS trainer must be able to influence those trying to implement change</li> <li>-LSS trainer needs to have influence and get enormous leverage by focusing on initial efforts</li> <li>-LSS trainer influences in a way to allow greater changes that the deployment will progress smoothly and receive support.</li> </ul>	<ul> <li>-Influence – a persistent, shaping effect upon the thought and behavior of human beings, singly or collectively.</li> <li>-Influence process: A relationship between persons or groups where one or the other party (or both) utilize some form of interpersonal (or intersystem) operation to induce the other to do, or feel, or to think that which the influencer believes is desirable.</li> <li>-Influence is shared interest that appears to be a channel through which influencing (some sort of change) flows.</li> <li>-Influence is operational through a relationship of mutual interest in which there is a high degree of congruence and reciprocity between and among employers and employees/participants working toward a shared interest in similar goals, (Appendices B, B-1, B-2, B-3, and B-4).</li> <li>-The Seven Factors made up of the forty-five items in the Modified Instructional Perspectives Inventory (MIPI);</li> <li>-The Five Elements of Organizational Learning Capabilities (OLC);</li> <li>-The Four Strategies that make real leaders (as opposed to managers) be successful;</li> <li>-The Fifty-Four Competencies and that combine to make an organization be</li> </ul>
	times.

*Comparisons (LSST Influence – EOA Influence)* 

Table 9 provides a comparison of LSST and EOA influence.

#### **Influence Narrative**

In the Lean Six Sigma (LSS) soft skill influence, the LSS trainer must be able to influence those trying to implement change; to influence and get enormous leverage by focusing on initial efforts; and to influence, to allow greater changes, that the deployment will progress smoothly and receive support. No definition or clarification is provided of the meaning of influence.

A couple of terms and commentary related to the concept of influence, may also help to shed light on and help clarify it (Influence: a persistent, shaping effect upon the beliefs, thought and behaviors of human beings, singly or collectively). In addition, (the influence process: a relationship between persons or groups where one or the other party (or both) utilize some form of interpersonal (or intersystem) operation to induce the other to do, or feel, or think that which the influencer believes is desirable.

Influence is a matter of an employer being interested in employees/participants who have equal, or perhaps very slightly lower, interest. Shared interests, in short, appears to be a channel through which influence flows.

The following, Modified Instructional Perspectives Inventory (MIPI) with 7 factors and 45 items is presented from perspectives of the employers, and employees/ participants. The closer the perspectives are between the employers, and the employees/participants, the more congruent, and influential their work productivity will be (Katz et al., 1955). If and when that happens, the great influence will take place and become operational, when communication of the words and actions of the employers, and employees/participants increase congruence between and among each other. These matches are especially important in the amount and quality of influence beyond the measure of communication. Following are the seven factors and the 45 items, both positioned from the employers' and the employees'/participants' points of view.

*LSST Competencies – Influence*. Influence (that is personal) is the relationship that is initiated by an employer which facilitates the learning of employees/participants as they gain ground in matching their perception of what the employer is carrying forward with their learning process/experience and it is becoming increasingly congruent with what the employer perceives s/he is carrying forward in the learning process/experience.

Following are the three factors of Empathy, Trust, and Sensitivity, with their 23 elements, both positioned from the employers' and employees'/participants' point of view. The employer and the employee/participant can use the Factors listed on the MIPI, as seen in Table 8, to make their own judgements about what is happening in those situations.

Competencies of Educators of Adults - with Emphasis on Influence through Five Organizational Learning Capabilities. The following articulation of five organizational learning capabilities (OLC) is presented from perspectives of both employers, and employees/participants. The great influence takes place if and when the words, actions and perceptions of the employer and employee/participant become congruent and increasing in congruence between and among each other. Table 10 summarizes the elements from the perspective of employer and the perspective of an employee.

#### Table 10

Organizatio	onal Learning	<sup>v</sup> Capabilities	– Elements	of its Meaning
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As an employer,	As an employee/participant,
I perceive myself as:	I perceive that my employer is

- 1. <u>Experimenting</u>:
  - a. The degree to which new ideas and suggestions are attended to and dealt with sympathetically.
  - b. Involves trying out new ideas.
  - c. Being curious about how things work.
  - d. Carrying out changes in work process.
- 2. <u>Risk Taking</u>:
  - a. Tolerance of ambiguity, uncertainty and errors.
  - b. An important trait for organizations to develop
  - c. Effective organizations accept and learn from failure and mistakes.
- 3. Interacting with the External Environment:
  - a. The scope of relationships with the external environment.
  - b. Organizations have to keep up with the external environment; thus,
  - c. Interaction with the external environment plays a major role in organizational learning and development.
- 4. Dialoguing:
  - a. A sustained collective inquiry into:
    - The processes
    - The assumptions and
    - The certainties
      - ∽ That make up every day experience.
  - b. A process to create an understanding of communication. Therefore, is a crucial factor for organizational learning?
- 5. <u>Participative Decision-Making (DM)</u>: The level of influence, ownership employees have in it:
  - a. The level of influence employees has in the decision making process
  - b. By supporting participative decision-making organizations benefit by increasing
    - Employment involvement,
    - Job satisfaction,
    - Organizational commitment, and
    - Ownership of decision outcomes.

*Note:* Organizational Learning Capabilities (OLC) – Elements of its Meaning provides a somewhat complete articulation of the OLC

#### **EOA Leaders Strategies of Taking Charge**

This section indicates the three strategies for leaders taking charge of

Management of Attention through Vision, Meaning through Communication, Trust

through Positioning, and the Deployment of Self through Positive Self Regard and the

Wallenda Factor.

Table 11 identifies the full description of Four Leader Strategies for Taking Charge, as

presented from perspectives of both employers, and employee/participants.

Table 11

Management of Attention Through Communication, Positioning, Positive Self Regard, and the Wallenda Factor.

As an employer,	As an employee/participant,
I perceive myself as:	I perceive that my employer is

Management of: Attention through Vision: So, compelling it brings others to a place they have not been before

- a. Making employees/participants want to join in with her/himself,
- b. Enrolling employees/participants in a compelling vision that brings others to a place they have not been before,
- c. Conserving/not wasting employee's/participant's time,
- d. Knowing exactly what h/she want,
- e. Uniting others with her/his intention and outcome, goal or direction,
- f. Her/his intentions (vision) always evident.

Meaning through Communication: Make dreams & visions apparent so others align with them

- a. Making dreams apparent to employees/participants
- b. Aligning employees/participants with employers' dreams
- c. Using metaphors clear to employees/participants and with which they can identify
- d. Making ideas tangible and real, so employees/participants can support them
- e. Creating meaning, not merely explaining or clarifying a goal to employees/participants
- f. Integrating facts, concepts, and anecdotes into meaning for the employees/participants
- g. Helping employees/participants understand and support leaders' goals in a variety of ways

Trust through Positioning: Reliable, Consistent, Congruent, and Constant with talk and walk

- a. Employer reliable, consistent, congruent, constant, focused and all of a piece
- b. Employer is being counted on and will not shift positions
- c. It is clear where he/she is coming from and what he/she stands for, even though others may disagree with it.

Deployment of Self Trust through Positive Self-Regard and the Wallenda Factor: Knowing One's skills and displaying them effectively through:

- a. Positive Self-Regard knowing themselves, their strengths, and nurturing them; and,
- b. The Wallenda Factor Capacity for concentrating on the intention, the task, the decision
- c. Knowing her/his skills and deploys them effectively
- d. Knowing themselves, their strengths and nurture them
- e. Concentrating on the intention, the task, the decision
- f. Being unacquainted with the concept of failure
- g. Learning from and using something that does not go well
- h. Concentrating on winning, not on not losing

The collective effect of this kind of leadership is employers and

employees/participants feel significant; learning and competence matter; employers and employees/participants are part of a community; work is exciting; and the organization not only survives but flourishes even in down economic times.

### Gaps and Comparisons between the LSST and the EOA

#### Gaps of the Lean Six Sigma Trainer's (LSST) Influence:

- No explanation is given about what the influence is that the trainer must use upon or with those trying to implement change.
- No explanation or description is provided about the enormous leverage of influence by focusing on initial efforts, I presume (but don't know) will result in implementing change.
- Implies (but does not state) that using influence will allow greater changes to Take place, which may be brought about through deployment that will supposedly progress smoothly and receive support.

#### Gaps of the Competencies of Educators of Adults' - Influence:

- No gaps are apparent relating to influence because in this section, influence is fully identified and is explained as to how influence is deployed.

# Statements and Comparisons Concerning the Lean Six Sigma Trainer (LSST) and the Educator of Adults (EOA) – Testing

This section lists, in order, each of the LSST competencies: Vision, Leadership, Empowerment, Communication, Influence, and Testing. Within each of these competencies, there will be a slightly different order presented. The following sequence will be presented on this one: Testing: Overall comparison of LSST elements and (EOA),

LSST competencies, and Gaps and comparisons between the LSST and the EOA.

#### Testing

#### **Overall Comparison of (LSST) Testing and EOA Testing**

Table 12 provides the comparison between LSS and EOA with regard to testing.

Table 12

Comparison of Competencies of Lean	Comparison of Competencies of
Six Sigma Trainer (LSST) Testing:	Educators of Adult's Testing:
-LSS trainers must be able to gain trust	- There is no focus on testing in the
with adult learners.	literature and practice of being
-By allowing the learner to complete	successful/effective in the education
tasks unaided,	of adult employers and employees/
-Allows learners the freedom to complete	participants.
tasks, with little or no supervision.	
Although, the LSS trainer would be	
available to view tasks.	

*Comparisons (LSS Testing – EOA Testing)* 

#### **Testing Narrative**

In the Lean Six Sigma soft skill, trust, the LSST must be able to implement the proper teaching methods, if the adult learner fails in any task, it is often viewed as a reflection on the LSST. Each process step must be carefully developed, if so, the adult learner will not fail at the completed tasks or other processes. In testing, it is as much for the LSST as well as the adult learner. All LSSTs must evaluate all training materials and resources available. Additionally, a LSST must show how the adult learner are evaluated against all training objectives and must know how to properly evaluate themselves.

*LSST Competencies – Testing*. In testing, it is as much for the LSST as well as the adult learner. All LSSTs must evaluate all training materials and resources available. Additionally, a LSST must show how the adult learner are evaluated against all training objectives and must know how to properly evaluate themselves.

*Gaps and Comparisons - No Testing Conducted*. There was a list of competencies above relating to LSST. Nonetheless, there was no focus on testing conducted in the literature and practice of being successful/effective in the (EOA) education of adult employers and employees/participants.

# Emerging Themes/Aspects not Directly Included in the Lean Six Sigma Competencies

Where Trust is Identified and Fully Expressed. In Lean Six Sigma (LSS), Trust was referred to in only three instances – Leadership, Empowerment, and Communication. In leadership under letter E, it was indicated that the LSS Trainer must develop trust, which trust is critical, and trust comes from the simple acts of treating people with respect and fostering positive relationships. In Empowerment under letter C, it was indicated that the LSS Trainer must be able to display trust, which is part of the meaning of empowerment. In Communication under letter E, it was indicated that the LSS Trainer must create trust, a part of an organization's power.

By contrast, a much more robust explanation and presentation of trust is identified in the Competencies of Educators of Adults and the Modified Instructional Perspectives Inventory. In leadership [which is visionary] the leader manages employees'/ participants' trust through positioning. This is led by leaders who demonstrate to employees/participants that leaders are reliable, consistent, congruent, and constant. This is coupled with talk and walk matching trust which comes from the simple acts of not shifting positions, and its being clear where the leader is coming from, what s/he stands for, even though employees/participants may disagree with it. Furthermore, in Factor #7 of the Modified Instructional Perspectives Inventory (MIPI) the leader enacts the 11 elements of trust as follows: (1) purposefully communicates to employees/participants that each is uniquely important; (2) believes that each employee/participant knows what her/his goals, dreams, and realities are like, (3) expresses confidence that the employee/participant will develop the skills each needs; (4) prizes each employee/participant to learn what is needed; (5) feels employees/participants each need to be aware of and communicate her/his thoughts and feelings; (6) enables each employee/participant to evaluate her/his own progress in learning; (7) hears each employee/participant indicate what her/his learning needs are; (8) engages each employee/participant in clarifying her/his own aspirations; (9) develops a supportive relationship with each employee/participant; (10) experiences unconditional positiveregard for each employee/participant; (11) and respects the dignity and integrity of each employee/participant.

It is clear to see that the treatment of "trust" in the LSST materials is vague when compared with the treatment of trust in the materials related to the "Competencies of Successful Educators of Adults." In addition, the research related to "trust" in the "Competencies of Successful Educators of Adults" fleshes out more details of the meaning of "trust" when it comes to the relationship between the employer/educator/trainer and the adult learner/employee/participant.

Where Communication is identified. In Lean Six Sigma (LSS) the trainer must be able to communicate effectively: verbally, in writing, in public forums, and in private forums. The trainer needs to: work effectively in small group settings; understand and carryout instructions to participants; create honest communication which is part of an organization's power; and, define and communicate the strategy to achieve and maintain quality adopted by the organization.

By contrast, the much more broad and expansive communication in the competencies of educators of adults exemplifies this kind of leader as one who drives and manages communication by conveying meaning which: makes dreams and visions apparent to employees/participants and the public; helps people align with; uses metaphors clear to employees/participants, with which they can identify; makes ideas tangible and real so people can support them; creates meaning, not merely explanation or clarification of a goal; integrates acts, concepts, anecdotes into meaning for the public; and, gets their people to understand and support their goals in a variety of ways. This is depicted and enacted by the strongest interaction and supportive relationship of communication in merging the five organizational learning capabilities (OLC) – experimentation, risk-taking, interaction with the external environment, dialogue, and participative decision-making – elements of its meaning; with the seven factors of the MIPI – employer empathy with employees, employer trust of employees, planning and delivery of instruction, accommodating learner uniqueness, employer insensitivity toward employees, learner-centered learning processes, and employer-centered learning processes.

There were 72 matches between the MIPI 45 items within the seven factors, and the five organizational learning capabilities. Employer trust of employees had 18 matches, the highest number between any MIPI factor and OLC dimension.

Where Leadership is addressed. In Lean Six Sigma (LSS) the trainer must be able to engage and motivate employees/participants, and assist them in developing

leadership, successfully carrying forward the initiative, as well as accomplishing certain goals and objectives.

By contrast, a more extensive and in-depth conception and action regarding leadership (which is visionary) in the competencies of educators of adults is provided, outlined and detailed as the kind of employer/leader (trainer) description who drives and manages her/his leadership as: attention through vision, meaning through communication, trust through positioning, and deploys her/himself through positive selfregard and the Wallenda Factor which is composed of focus and concentration. In addition, this kind of employer/leader (trainer) practices/exemplifies/demonstrates the five elements of empathy with, 11 elements of trust in, and seven elements of sensitivity toward employees/participants. Moreover, this kind of employer/leader (trainer) translates/applies/strengthens connections with employees/participants through 57 matches of the MIPI with the five organization learning capabilities (OLC) of experimentation, risk-taking, integration with external environment, dialogue, and participative decision-making.

#### Where Reciprocity is Identified and Described

*Reciprocity* – Mutually supportive concepts that seek to combine words and actions that move increasingly to strengthen words and actions toward congruency/agreement.

*Reciprocity of Empathy, Trust, and Sensitivity*. To be effective, the employer needs to combine reciprocity of the 23 elements of empathy, trust, and sensitivity in concert with the ability and potential of employees/participants for the same; to understand the learning/training process and interact with employees/participants

effectively, in making the right choices. This reciprocity takes the form of the employer initiating and maintaining the combination of the following three elements: empathy, trust, and sensitivity, in concert with employees/participants for the same.

When combined, the higher the score on the 16 elements of Empathy and Trust, the more satisfied the employee/participants are with their jobs and learners are with their learning situation. In turn, this results in them wanting to stay with the organization, and this desire is strongly supported by the seven elements in Sensitivity. The 23 Elements that are included in the three factors of the MIPI – Empathy, Trust, and Sensitivity can be found on Table 8, with related threads found in Figure 3.

-With the organization communicating and functioning in
such a way as to increase and strongly support productivity;
and;
-Reciprocally intermingling the 23 elements of empathy, trust,
and sensitivity to mutually and strongly support employee/
participant satisfaction to increase their desire to stay:
increased productivity, survival and flourishing may well be
anticipated.

#### Figure 3. Organizational Communication

#### Where Empowerment and its results are made visible. In Lean Six Sigma

(LSS) where empowerment is carried out, it is the result of the kind of leader who actively engages and empowers employees/participants to the point of their being accountable for the maintenance of their own work processes, displays empowerment and engagement as critical organizational goals and exemplifies their meaning as: mutual respect, trust, skill, responsibility in actions, getting results, willingness to share power, collaboration to achieve synergy, and breakthrough results.

By contrast, the kind of employer/leader/trainer enacting the Competencies of Educators of Adults, who has a compelling vision that exemplifies, drives, manages, and inspires/empowers employees/participants to the point of producing such results as showing that: learning and competence matter; employees/participants become part of a community, team, family, unity; work becoming exciting – pulling, not pushing; motivation coming through identification, rather than through rewards and punishments; enhancement takes place by being strongly supported through the five Organizational Learning Capabilities (OLC); being bolstered with the 11 major comprehensive pillars of trust; and thus, helping corporations garner the vision the flourish and grow during excellent economic times, as well as difficult economic times.

#### **Introduction to Appendix Related to Question 2**

**Research Question 2**. What is the level of satisfaction with Monsanto's Lean Six Sigma training program, as it relates to the electronic course evaluation results?

In the Business Process Improvement Survey instrument, although there are 15 questions addressed, only six of the questions directly answer Research Question 2 related to level of satisfaction. They are: questions 4, 5, 6, 8, 12, and 15. The following questions did not address the issue related to level of satisfaction. These were, questions 1, 2, 3, 7, 9, 10, 11, 13, and 14.

#### The Business Process Improvement Survey. The Business Process

Improvement Survey (Appendix D) was used to capture the research responses provided by 30 anonymous participants of the Lean Six Sigma training program at Monsanto Company.

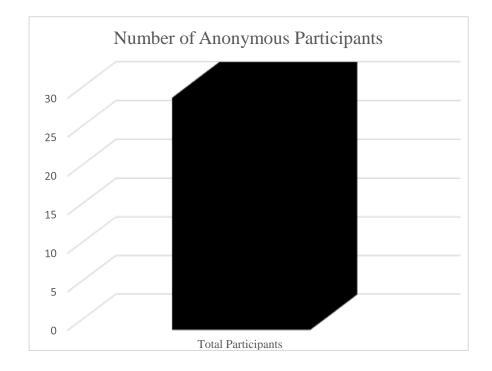
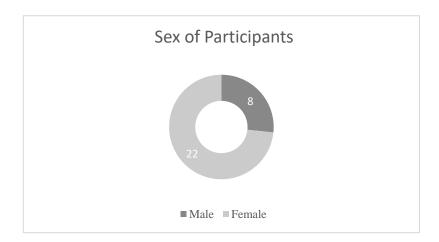


Figure 4. Number of Anonymous Participants.

Targeted participants (30) responded to the anonymous electronic course evaluation.



#### Figure 5. Sex of Participants

The number of participants and gender of participants were captured from this research data and shown in Figure 4 and Figure 5. The targeted participants (30) responded (yes) to the anonymous electronic course evaluation. There were 22 females

and eight males, who responded to the anonymous electronic course evaluation as

indicated in the above chart.

Question #1 - Did you participate in any Business Process Improvement training as a (Green Belt, Black Belt, and Lean Event)?

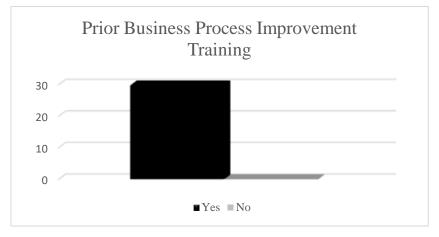
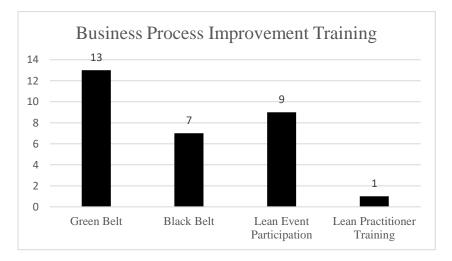
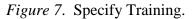


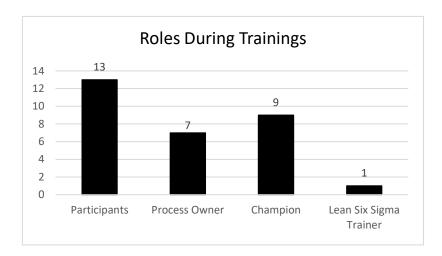
Figure 6. Prior Business Process Improvement Training.

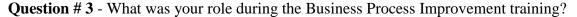
**Question** # 2 - Please specify the Business Process Improvement training.





There were Green Belt (13), Black Belt (7), Lean Event Participation (9), and Lean Practitioner training (1) who responded to the anonymous electronic course evaluation.

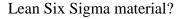




#### Figure 8. Roles during trainings.

The participants responded by identifying their role during the Lean Six Sigma training, participants only (13). The participants did not have certification and were participating in the LSS training program to achieve certification. Process Owners (7) were individuals who have the authority to own processes and responsible for the output and customer's expectations of the process, a part of a LSS project team (Breyfogle, 2003, p. 35), Champions (9); a Champion is a vital role, they are selected to remove any process barriers and works closely with the Black Belt to finalize projects in a timely manner (Breyfogle, 2003, p. 36), and a LSST (1), a Subject Matter Expert (SME) in Lean Six Sigma methodology, who is responsible for the trainer and developing courseware for a Lean Six Sigma training program Breyfogle, 2003, p. 1004).

Question # 4 - Did the trainer present her/himself as being knowledgeable of the



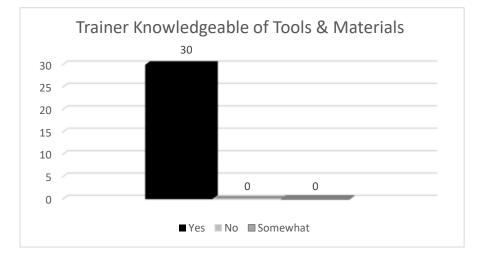
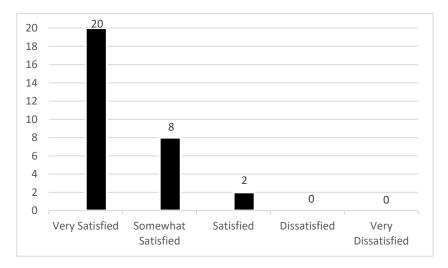


Figure 9. Trainer Knowledge and Materials.

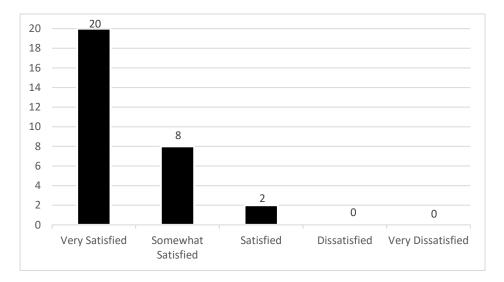
Each participant responded of the LSST's knowledge of the tools and materials, all 30 participants agreed that the LSST was overwhelmingly knowledgeable of the Lean Six Sigma tools and materials. The choices were: Yes (30), No (0), and Somewhat (0).



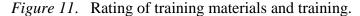
Question # 5 - How would you rate the trainer's knowledge and professionalism?

Figure 10. Rating of trainer.

Each participant responded; (20) were very satisfied, (8) were somewhat satisfied, and (2) were satisfied, (0) were dissatisfied, and (0) were very dissatisfied, with the overall rating of the LSST.



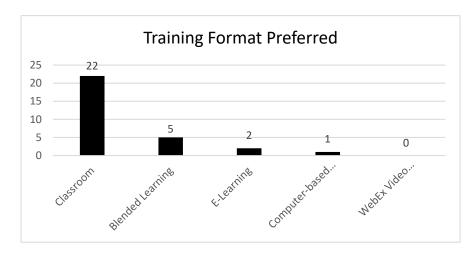
**Question #6** - How would you rate the trainer and materials?



Each participant responded; (20) were very satisfied, (8), were somewhat satisfied, (2) were satisfied, (0) were dissatisfied, and (0) were very dissatisfied, with the training materials and the training itself.

Figure 12 indicates how each participant responded to the format of training they each preferred (22) responded they preferred the interpersonal format of being in the classroom, (5) preferred the blended learning format, (2) responded they preferred the E-Learning format, and lastly, (1) responded they preferred taking an online CBT (Computer-Based Training), and (0) preferred WebEx Video Conferencing. It was noted, even though there were various options of formats of training, in a Lean Six Sigma setting, it would be most difficult to train in any format other than classroom. However,

taking the final steps in the certification process, there were online exams and modules required prior to certification.



Question #7 - What format of training would you have preferred?

Figure 12. Training format preferred.

Question #8 - Would you recommend this training to others?



Figure 13. Recommendation of training.

Each participant responded whether they would recommend the Lean Six Sigma training to others, overwhelmingly, each of the participants (30) responded favorably and they would recommend the training to others, (0) responded No, and (0) responded Somewhat.



Question #9 - Did you receive certification? If so, please specify.

#### Figure 14. Certifications received.

Each participants responded, there were participants who were Green Belts (12), there were Black Belts (6), there were participants who were non-certified (9), there were participants who were Lean Practitioner (3), and there were no Master Black Belt (0) that participated, however, the non-certified participants had previously attended a Lean Event.

**Question # 10** - Did you have the support of your manager to participate in this training?

Figure 15 records how each participant responded if they were given support by their managers to participate in the training, all 30 participants agreed that they were given support by each of their managers, in some cases, they were even encouraged to participate, others, the certification was tied to their DPR (Development, Performance, Review) (0) responded No, and (0) responded Somewhat. The choices were: Yes, No, Somewhat.

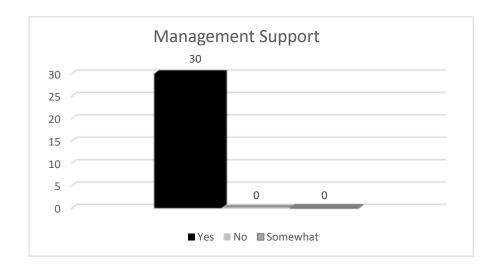


Figure 15. Management support.

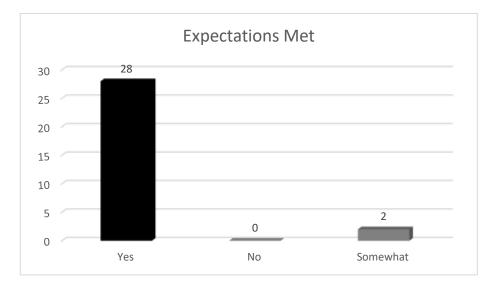
**Question #11** - What was your expectations of the training?

All 30 participants responded, and their responses varied and are listed below;

- (1) Expectations were to understand LEAN Six Sigma for practical application in my current role. I will receive my Green Belt certification when my project is complete.
- (2) To go over Lean and Six Sigma concepts and their relation. And how they are applied in industry vs. Monsanto.
- (3) Give me the skills to do my job.
- (4) To learn the idea of six sigma and how to apply it to the process.
- (5) To gain enough knowledge to become certified as a black belt.
- (6) To learn how to best use the tools provided in the CBTs and apply the tools appropriately to my job function.
- (7) Learn the material and be prepared to complete the project \*\*\*Not sure how to answer question 9... I have not completed the project, so I have not received the certification\*\*\*
- (8) Become proficient in performing Lean Six Sigma events.
- (9) To expand on what I learned in Green Belt Certification.
- (10) To better understand Lean/Six Sigma and the methodology used to achieve waste reduction and continuous improvement.
- (11) Learn methodology to analyze process flows, and to find opportunities for improvements.
- (12) To complete as is and to-be process flows.
- (13) Learn about process flows.
- (14) Keep training focused in the real world. Be clear how the training relates to the organization's long and short-term goals.

- (15) My expectations were to learn as much as I could about Lean Six Sigma and I was very glad that I took the training it was very informative.
- (16) Learning tools to simplify my daily tasks.
- (17) My expectations were to learn as much about Lean/Six Sigma as possible.
- (18) To learn how to save Monsanto money by learning cost saving techniques.
- (19) To view behaviors and attitudes of participants.
- (20) Better ways of completing my tasks.
- (21) To learn what I could to be able to share with my team.
- (22) To simplify current processes.
- (23) Weeklong event with lots of new tools.
- (24) To get my greenbelt certification.
- (25) No particular expectations.
- (26) To learn lean six sigma methodology.
- (27) Learn a new way of doing my daily tasks.
- (28) Lean Six Sigma.
- (29) Green Belt Certification.
- (30) Green Belt

**Question # 12** – Were your expectations met?



#### Figure 16. Expectations met.

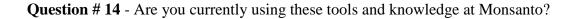
All participants (30) responded whether their expectations were met during the Lean Six Sigma training. Participants (28) responded that their expectations were met; (0) responded No, and (2) responded Somewhat, to question 12.

### Question # 13 - What would you change about the training?

All 30 participants responded, and their responses varied and are listed below;

- (1) The training was what I needed. I would I would have preferred time for each participant to work on her/his project within the class to get a jump start and feedback from the trainer but that may have added another day which would be undesirable. Otherwise, the training was effective for Lean Six Sigma (with a reduced emphasis on statistics) and the Roundtable classroom set up was appropriate. The trainer had great practical examples that will help to apply lean six Sigma methodology in my current role.
- (2) to add some introduction to statistical analysis, although I understand there will be an in-depth coverage during the black belt training. Group activities were fun and may be to add a few more.
- (3) provide an outline to take notes on, provide access to presentation materials, provide better support around matching students to mentors.
- (4) be more publicly posted. Many team members are looking to participate in these training exercises.
- (5) I received my green belt and 2009. It was two weeks of classroom training (one week, a week break, then another week). I prefer classroom training because I learn more from the interaction. From the questions asked in the room, from the experience of others, and from those others who help to explain things in different ways. I also appreciated the small exercises to challenge our ability to use the tools in front of others (such as the "helicopter challenge"). It was fun and really forced us to learn. Also, because of the intense nature of the in-person training, I not only learned more, but I built relationships with people that I still have to this day. I would suggest if at all possible to make certifications through in person, classroom style training. It is much harder and therefore much more satisfying to receive your certification through the rigor of the classroom and in front of your peers. If the trainee and their manager are not willing to make the tough commitments, then they shouldn't go through it. This includes not only the commitment of time but assigning the person to a project that needs to be analyzed and will add true value if optimized and implemented. Managers need to understand what type of project their trainee should be taking on, not a fluff project that impacts nothing or has no intentions of being implemented.
- (6) have multiple instructors, five days straight for one person is to teach this curriculum is a lot to expect.
- 7) nothing
- (8) don't expect attendees to remember everything they heard in the training. Reinforce it and model it until it becomes second nature.
- (9) nothing
- (10) nothing
- (11) Nothing
- (12) nothing
- (13) Nothing

(14) N/A
(15) Not one thing
(16) nothing
(17) My expectations were to learn as much about Lean/Six Sigma as possible.
(18) To learn how to save Monsanto money by learning cost saving techniques.
(19) N/A
(20) Better ways of completing my tasks.
(21) To learn what I could to be able to share with my team.
(22) Nothing
(23) Weeklong event with lots of new tools.
(24) To get my greenbelt certification.
(25) N/A
(26) N/A
(27) N/A
(28) N/A
(29) N/A
(30) N/A



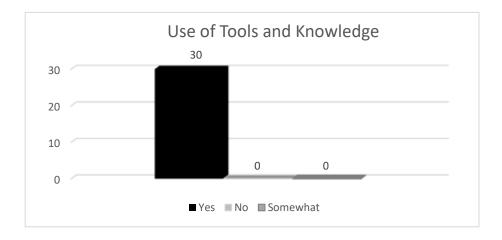
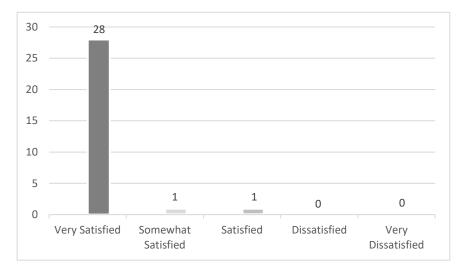


Figure 17. Tools and Knowledge.

Each participant responded if they were currently using the Lean Six Sigma tools and knowledge at Monsanto. All participants (30) responded to question 14; (0) responding No, and (0) responded Somewhat.



**Question #15** - What was your overall level of satisfaction of the training?

#### Figure 18. Overall Satisfaction.

The electronic course evaluation survey, question #15, each participant was asked what their overall level of satisfaction was: (28) participants responded very satisfied, (1) participant responded somewhat satisfied, (1) participant responded satisfied, (0) responded dissatisfied, and (0) responded very dissatisfied. Question #15 determined the most impactful of this research study. The level of satisfaction was referred to Research Question 2.

All data collected from the electronic course evaluation survey, addressed Research Question 2 in determining the level of satisfaction by adult learners.

#### **Introduction to the Hypothesis Related to Question 2**

Each of these two research questions and the hypothesis were addressed in turn throughout Chapter Four. Research Question 1 results is a separate section, with several sub-sections. Research Question 2 addressed the level of satisfaction with the Monsanto training program. However, the data addressing the Hypothesis was framed to additionally support and enhance the level of satisfaction derived from the results of Research Question 2.

The Hypothesis was designed to address and add to the level of support that was indicated from the data from Research Question 2 and Appendix D. The information addressed the Hypothesis was through the Beliefs, Feelings, and Behaviors of LSSTs with adult learners (Appendix F), Adapted Inventory of Competencies of an Educator of Adults (Appendix F-1), which listed the frequency used by the LSSTs with adult learners, and Merging MIPI with Leader Strategies for Taking Charge for LSSTs (Appendix G). **Hypothesis:** 

If LSSTs effectively trained employees, employees would embrace knowledge transfer based on their level of satisfaction and commitment, as measured by the Business Process Improvement Training Survey responses. The Appendices (F, F-1, G) add supportive data in relationship to Research Question 2.

#### **Introduction to Appendices Related to Hypothesis**

**Beliefs, Feelings, and Behaviors**. For this study, the modification of this description was changed that reflected three parts, beliefs, feelings, and behaviors of beginning or seasoned LSS trainers of adult learners that they may or may not possess at a given moment (Appendix F). This included nine items over and above the 45 original MIPI items, and were added to the categories; five Organizational Learning Capabilities – Elements of its Meaning: 1) experimentation; 2) risk-taking; 3) interaction with the external environment; 4) dialogue, and 5) participative decision-making; and four Competencies/Management Strategies of Visionary Leadership: 1) attention through

vision; 2) meaning through communication; 3) trust through positioning; and 4)deployment of self through positive self-regard, and the Wallenda Factor.Each of these items were categorized within the framework of the seven factors for theModified Instructional Perspectives Inventory (MIPI). The results of combining theabove 54 items of Beliefs, Feelings, and Behaviors is shown in Appendix F.

#### LSS Trainers' Modified Instructional Perspectives Inventory

The researcher focused on (Appendix F-1) that revealed the frequency of each of these leadership traits and soft skills observed during the training event of LSS trainers. Appendix F-1 was modified for this research and included the OLC and the Visionary Leadership Competencies (Appendix B-4). This Appendix was the result of combining the Competencies of an Educator of Adults (45 items), five OLC, and four Leaders Strategies.

The result of using this Appendix shows the total in each category. In review of (Appendix F), it was noted that 'Almost Always' was an important factor that impacted the results to further prove the importance of (Appendix F and Appendix F-1).

For all questions (Appendix F-1) assign the following points for secondary data: 1 = Almost Never; 2 = Not Often; 3 = Sometimes; 4 = Usually; and 5 = Almost Always.

For this study, the modification of this description was changed to reflect the LSS trainers of adults. Each of these statements indicated the frequency that applied to trainers as they educated adult learners. This tool would reveal the frequency of the LSS trainer activity of these three parts, denoting the highest score in a chart.

For full details of what was prepared in this part of the research, you may review Appendix F-1. Most importantly, this part revealed the following points of 1) almost never, not often, sometimes, usually, and almost always to rate the impact of the importance from the adult learners of the LSST. The results are shown in Appendix F-1.

#### Merging MIPI with Leader Strategies for Taking Charge for LSS Trainers

The researcher focused on Appendix G in comparing the soft skills with the leadership traits. This MIPI focused on seven factors. In addition, Appendix G offered additional insights of Research Question 2 and the hypothesis.

For full details of what was prepared in this part of the research, review Appendix G. Most importantly, this part revealed that in 34 out of 54 items, it was observed that almost always or usually were done by the LSST.

# Doctoral Dissertation Completed Using Henschke's Modified Instructional Perspectives Inventory

The researcher utilized the completed doctoral dissertation completed by using Henschke's (1989) Modified Instructional Perspectives Inventory (MIPI); (Appendix H) which were 26 in total. These items were used as part of addressing Research Question 1. The MIPI was validated three times for reliability. Trust was the strongest factor throughout. For full details of what was prepared in this part of the research, review Appendix H.

#### Conclusion

Chapter Four represents a comprehensive assessment of the researcher's description of results and conclusions using literature review and data collected to validate this research study. The researcher compared the prominent leadership traits with the LSS soft skills. Each of the soft skills and leadership traits revealed similarities and gaps during the comparison for the research study. In Chapter One, the conceptual

framework was used to guide the research questions (Appendix E). In Chapter Five, data analyzed results will be reported and additional implication for practice and discussions, conclusions, and recommendation for further research will be provided.

# Chapter Five: Discussion, Implications, Recommendation

#### Overview

Chapter Five provides the conclusions of Research Question 1, Research Question 2, and the Hypothesis. Throughout the comparison, the researcher became aware that trust was a dominant theme in the Competencies of Educators of Adults (EOA) literature, which was a major success factor in adult learners/employees/participants. However, trust was a very minor part of the LSST competencies. There were other themes that were also identified.

#### **Research Question 1**

What was the comparison between the identified leadership traits and competencies that are associated with effectively training and educating adult learners and the identified soft skills of the Lean Six Sigma Trainer?

#### **Research Question 2**

What was the level of satisfaction with Monsanto's Lean Six Sigma training program (conducted by LSSTs) as measured by the anonymous electronic course evaluation survey? Business Process Improvement Training Survey (Appendix D).

#### **Hypothesis:**

If Lean Six Sigma Trainers effectively trained employees, employees would embrace knowledge transfer based on their level of satisfaction and commitment, as measured by the Business Process Improvement Training Survey responses. The appendices (F, F-1, G) add supportive data in relationship to Question 2.

The Hypothesis was designed to address and add to the level of support that was indicated from the data from Research Question 2 and Appendix D. The information

addressed the Hypothesis was through the Beliefs, Feelings, and Behaviors of LSSTs with adult learners (Appendix F), Adapted Inventory of Competencies of an Educator of Adults (Appendix F-1), which listed the frequency used by the LSSTs with adult learners, and Merging MIPI with Leader Strategies for Taking Charge for LSSTs (Appendix G).

#### Discussion

The researcher took each one of these processes to strengthen and suggest improvement for LSST use. In this section, the researcher refers to facilitators and learners; however, using that terminology will refer to teachers and students, employers and employees, leaders and followers, and supervisors and supervisees.

#### **Implications for Practice**

The researcher proposed a sequence of five different processes with each succeeding process being deeper and more comprehensive than the previous one. The major issue that the educator of adults (EOA) had going for them that was very minimal in the LSST was the factor of trust that could strengthen the educational processes.

Process # 1 is to have the facilitator and learner each complete the MIPI-E according to the instructions provided at the top of the page. Next, have the facilitator and learner share the differences in their ratings of the facilitator's level of trust in the adult learner from the 11 elements of trust. Then compare the gaps in each element between facilitator and learner and have them seek to agree on closing the gap to improve the facilitation of the learning by the LSST.

Process # 2 is that trust could be greatly strengthen by the leaders' competencies of 'trust through positioning' as indicated in Appendix I. This means that as the facilitator considers each of the 11 elements of trust s/he adds the concentration of

exemplifying, reliability, constancy, focus, being all of a piece, counting on sticking with and not shifting a position, clarity where s/he is coming from, and what s/he stands for even though others may disagree with it. In contrast, 'trust through positioning,' when viewed from the learners point-of-view regarding how each assesses the facilitator, would be strengthened by a very high standard that would help her/him regarding to what extent the facilitator was practicing "in relation to the learner" reliability, constancy, focus, being all of a piece, the ability to be counted on, to maintain and not shift positions, being clear where the LSST/facilitator is coming from, and what s/he stands for even though others may disagree with it. If both facilitator and learners were inclined to discuss their gaps between each item and seek to address ways to close the gap between, there may possibly be improvement in the operation of the organization.

Process #3; with regard to Reciprocity of Empathy, Trust, Insensitivity, and Sensitivity (Appendix J, the higher score of the learners on the five elements of facilitator empathy with learners, and the 11 elements of facilitator trust of learners provides a unique combination that increases the job satisfaction of learners and in turn translates into their wanting to stay with the place they work. So, it would help improvement if both facilitator and learner work together in reciprocity to raise the scoring of these 16 elements of empathy and trust. Furthermore, if both facilitator and learners work together in reciprocity, to lessen each of their seven measures of insensitivity and increase each of their seven measures of sensitivity, the company would find more desire on the part of learners to stay with the place where they work. Thus, the cost for employee turnover would be much less than their wanting to leave the company. Process #4 is to look even further in the entire process and to strengthen the organizational operation along with its sustainability and flourishing (Appendix K). Each of the 11 elements of trust have been matched with the five Organizational Learning Capabilities (OLC) – experimenting, risk-taking, interacting with the external environment, dialoguing, and engaging in participative decision-making. These matches could be brought closer together as facilitator and learner together access and discuss collaboratively between them. It would be well to match the 11 elements of facilitator trust of learners with each of the five OLC.

For instance: each of the 11 elements of teacher trust of learner may be considered individually with their appropriate match of OLC. Trust element #1, purposely communicate to learners that each is uniquely important is matched with OLC #4 – Dialogue. Trust element #2, expresses confidence that learners will develop the skills they need, is matched with OLC #1 – Experimentation. This sequence could be followed on each trust element and each OLC, as indicated in Appendix K.

As further support and strengthening of trust in the organization (between facilitators and learners), each of the five OLC could be considered as they are matched with trust elements (Appendix L). Thus, the OLC dialogue is matched with seven trust elements. The OLC participative decision-making is matched with five trust elements. OLC risk-taking is matched with three trust elements; OLC experimentation is matched with two trust elements; and, OLC interaction with the external environment is matched with one trust element. When all of these OLC and trust elements are fully discussed and agreed upon, the organization can expect to be strengthened and clear as to where it is going and accomplishing its mission and purpose. Process # 5 enacting visionary leadership, Which Vision, in Appendix B-4, of all the other collaborative efforts, may help to put the organization 'over the top.' When visionary leadership is present, people, workers, employees can be expected to enroll in an exciting vision which has a concept of quality – something appreciated intuitively, responded to by a feeling, connected intimately with our experience of meaning, beauty, and value in our lives, and is closely linked with quality. It has a concept of dedication, even love of our work. It is evoked by quality. It is the force that energizes high performance systems that facilitate our work. This kind of visionary leadership is exemplified by the four strategies (or competencies), as follows.

**Management of attention through vision** – a compelling vision that brings others to a place they have not been before.

**Management of meaning through communication** – to make dreams and visions apparent to others through communication and to get people to align with them.

**Management of trust through positioning** – Its main determinant is reliability and constancy.

**Management of deploying the self** by knowing one's skills and effectively enacting them through positive self-regard (knowing themselves, their strengths and nurturing them), and the Wallenda Factor (capacity for concentration on the intention, the task, the decision).

As these are enacted, empowerment (the collective effort of visionary leadership) results and shows itself as people [workers, employees] feeling significant, learning and competence mattering, people [workers, employees] become and are part of a community, and work is exciting. This configuration has been used in 60 private

corporations and 30 government entities. The amazing results were that each of these flourished (socially and economically) in a down economic time in the United States of America.

#### **Additional Implications for Practice**

The following are some additional implications to be considered for possible practice.

- Consider each element of trust identified to implement in any learning program for employees/participants.
- Seek improvement of communication with any oral of the participants in your programs.
- Focus on enhancing your leadership competencies with those that may be following you.
- Concentrate on reciprocating among each element of Empathy, with Trust in, and Sensitivity toward your Learners/Employees/Participants.
- Devote energy toward engaging your employees/participants in showing Empathy, Trust in, and Sensitivity to other employees/participants and the Facilitator in the program.
- 6) Make empowering the employees/participants with whom you work a primary goal of your continuing education/training program.
- Design and implement a personal/professional improvement program for your own competencies.
- Ponder adopting any or all of the above for seeking improvements in the Monsanto Lean Six Sigma training program.

#### ANDRAGOGY AND LEAN SIX SIGMA

#### **Recommendations for Further Research**

- Suggest that readers consider replicating part or all of the research with groups and organizations they work with.
- Consider adding the element of feedback from learners for helping Facilitators/Employers/Leaders/Teachers improve the total organization's operation.
- Use measurements from the research to help both employers and employees identify the extent of their collaboration.
- Test the level of commitment by both employers and employees to provide direct feedback to each other focusing on organization improvement, increased productivity and increased economic flourishing.
- 5) Design a program within Monsanto to improve levels of Influence, Vision, and a better use of testing in the organization.

#### Conclusion

This research concluded with possibly offering opportunities for improving the Lean/Six Sigma training program, viewing inefficiencies, viewing areas that are currently not utilizing Lean Six Sigma, the reasons why this methodology is not being utilized in the IT organization instead of using other methodologies within Monsanto. This research was a great opportunity to view the process of adult learning and the possibilities as knowledge transfer, in the noticed attitudes, behaviors, and interactions by those participating in the Lean Six Sigma training program.

#### References

- Allen, C. R., Hambrecht, G. P., & Welch, R. L. (1945). The instructor, the man and the job: A hand book for instructors of industrial and vocational subjects (2nd ed.).
  Chicago, IL: J. B. Lippincott Co.
- Antony, J., Vinodh, S., & Gijo, E. V. (2016). Continuous improvement initiatives in SMEs. In *Lean six sigma for small and medium sized enterprises: A practical* guide (1st ed., p. 19). Boca Raton, FL: CRC Press Taylor & Francis Group.
- Baird, C. W. (2009). *The six-sigma manual for small and medium businesses: What you need to know explained simply*. Ocala, FL: Atlantic Publishing Group, Inc.
- Benton, S. L., & Cashin, W. E. (2012). Student ratings of instruction in college and university courses. In M. B. Paulsen, *Higher education: Handbook of theory and research* (vol. 29, pp. 279-386). Dordrecht, The Netherlands: Springer.
- Bennis, W. (2009). Mastering the context. In On becoming a leader (4th ed., pp. 1-32). New York, NY: Simon & Schuster.
- Bennis, W. G. (1984). The 4 competencies of leadership. *Training & Development Journal*, 38(8), 14-19. Retrieved from http://hr. tennessee.edu/training/wp-content/uploads/sites/7/2016/04/bennis\_. pdf
- Bennis, W. G., & Nanus, B. (2007). Leading others, managing yourself. In *Leaders: The strategies for taking charge* (2nd ed., p. 18-23). New York, NY: Harper & Row.
- Boca Gratiela, D., & Gokkaya, H. (2011). *How wastes influence quality management*. Retrieved from http://www.ann.ugal.ro/eco/Doc 2011\_2/BocaGokkaya.pdf

- Borris, S. (2012). The big picture map. In *Strategic lean mapping: Blending improvement processes for the perfect solution* (pp. 50-52). New York, NY: McGraw-Hill Professional.
- Breyfogle III, F. W. (2003). Implementing Six Sigma: Smarter solutions using statistical methods (2nd ed.). Hoboken, NJ: John Wiley & Sons.
- Breyfogle III, F. W., Cupello, J., & Meadows, B. (2001). Managing Six Sigma: A practical guide to understanding, assessing, and implementing the strategy that yields bottom-line success (2nd ed.). Hoboken, NJ: John Wiley & Sons.
- Burton, T. T. (2011). Accelerator #4: Communicate, communicate, communicate. In Accelerating lean six sigma results: How to achieve improvement excellence in the new economy (1st ed., Ch. 7). Ft. Lauderdale, FL: J. Ross Pub.
- Charron, R., Harrington, H. J., Voehl, F., & Wiggin, H. (2015). House of lean management. In *The Lean Management Systems handbook* (1st ed., pp. 63-92).
  Boca Raton, FL: CRC Press.
- Creswell, J., & Plano Clark, V. L. (2011). Collecting data in mixed methods research. In *Designing and conducting mixed methods research* (2nd ed., pp. 171-202).
   Thousand Oaks, CA: Sage Publication, Inc.
- Dennis, P. (2006). *Getting the right things done: A leader's guide to planning and execution* (p. 7). Cambridge, MA: The Lean Enterprise Institute, Inc.
- Dirgo, R. (2006). Look forward beyond lean and Six Sigma: A self-perpetuating enterprise improvement method. Fort Lauderdale, FL: J. Ross Pub.
- Duffy, G. (2014). The tools of Modular Kaizen. In *Modular Kaizen: Continuous and breakthrough improvement* (pp. 79-92). Milwaukee, WI: ASQ, Quality Press.

Fairholm, G. W. (2011). Understanding leadership. In *Real leadership: How spiritual values give leadership meaning* (p. 27-44). Santa Barbara, CA: Praeger.

- Farson, R., & Keyes, R. (2006). The failure-tolerant leader. In D. Mayle (Ed.), *Managing innovation and change* (3rd ed., Ch. 19). Thousand Oaks, CA: Sage Publications.
- Feldstein, J. M. (2007, January 18). Hospitals look to a leaner, better approach. St. Louis Post Dispatch, 3rd ed.(ID# 1000944362), C1.
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). *How to design and evaluate research in education* (8th ed.). New York, NY: McGraw-Hill Education.
- Furterer, S. L. (2009). Project Charter Review Process Design A design for Six Sigma case study. In S. L. Furterer (Ed.), *Lean Six Sigma in service: Applications and case studies* (p. 385-430). Boca Raton, FL: CRC Press.
- Gaddis, B., Napierkowsk, H., Guzman, N., & Muth, R. (2000). A comparison of collaborative learning and audience awareness in two computers-mediated writing environments. In Annual Proceedings of Selected Research and Development Papers. Paper presented October 25-28, 2000, at the Association for Educational Communications and Technology, Denver, CO.
- George, M. (2003). Lean Six sigma for service: How to use Lean speed and Six Sigma quality to improve services and transactions (1st ed.). New York, NY: McGraw Hill Education.
- George, M. O. (2010). *The Lean Six Sigma guide to doing more with less: Cut costs, reduce waste, and lower your overhead.* Hoboken, NJ: John Wiley & Sons.
- Glazer, F. S. (2012). Blended learning: Across the disciplines, across the academy. Sterling, VA: Stylus.

- Graban, M. (2007). Lean hospitals: Improving quality, patient safety, and employee satisfaction. Boca Raton, FL: CRC Press.
- Guarraia, P., Carey, G., Corbett, A., & Neuhaus, K. (2009). Six Sigma at your service. Business Strategy Review, 20(2), 56-61. doi:10.1111/j.1467-8616.2009.00600.x http://dx.doi.org/10.1111/j.1467-8616.2009.00600.x
- Gygi, C., DeCarlo, N., & Williams, B. (2012). Better business and better performance:Defining Six Sigma. In *Six sigma for dummies* (2nd ed., pp. 9-16). Hoboken, NJ:John Wiley & Sons, Inc.
- Harry, M. J., & Schroeder, R. (2000). Six sigma: The breakthrough management strategy revolutionizing the world's top corporations. New York, NY: Currency.
- Harver, G. (2015). What, exactly, is Lean Six Sigma? In *Lean six sigma for beginners: A quickstart beginner's guide to Lean Six Sigma* (3rd ed., pp. 3-8).
- Henschke, J. A. (1989). Identifying appropriate adult educator practices: Beliefs, feelings, and behaviors. A paper presented October 12-13, 1989, at the Midwest Research-To-Practice Conference on Adult, Continuing and Community Education, St. Louis, MO.
- Henschke, J. A. (2013). From history to practice: How trust empathy, reciprocity, and sensitivity in relationships create the foundation of learning. Retrieved from http://www.lindenwood.edu/r2p/docs/Henschke%202.pdf
- Henschke, J. A. & Vatcharasirisook, V. (2011). Organizational learning and employee retention: A focus study examining the role of relationships between supervisors and subordinates. Midwest Research-to-Practice Conference in Adult,

Continuing, and Community Education (2011). Retrieved from http://works.be press.com/john\_henschke/80/

- Horton, W. K. (2006). Designing e-learning Planning the development of online learning. In *E-Learning by design* (Ch. 1). San Francisco, CA: Pfeiffer-A Wiley Imprint.
- Huntzinger, J. (2005). *The roots of Lean training within industry: The origin of Japanese management and Kaizen* [Lean]. Retrieved from http://www.lean.org/Search/ Documents/105.pdf
- Isenberg, S. (2012). Merging education and business models to create and sustain transformational change. In V. C. X. Wang, *Vocational education technologies* and advances in adult learning: New concepts (1st ed., pp. 147-163). Hershey, PA: IGI Global Publishers.
- Jacobs, M. (2015). Empirical study and results. In *Cultural impact on lean six sigma and corporate success: Causal analyses considering the effects of national culture and leadership* (1st ed., pp. 191-232). New York, NY: Springer
- Jones, D. (1998, July 21). *Firms aim for Six Sigma efficiency* (1st ed.). McLean, VA: USA Today, 1(B).
- Jones, E. C. (2014). Quality awards and standards. In *Quality management for* organizations using lean six sigma techniques (1st ed., p. 27-56). Boca Raton, FL: CRC Press - Taylor & Francis Group, LLC.
- Jung, I., Choi, S., Lim, C., & Leem, J. (2002). Effects of different types of interaction on learning achievement, satisfaction and participation in web-based instruction.

Innovations in Education and Teaching International, 39(2), 153-162.

DOI: 10.1080/14703290252934603

- Kamin, M. (2013). What are soft skills? In Soft skills revolution: A guide to connecting with compassion for trainers, teams, and leaders (1st ed., Ch. 1). Hoboken, NJ: John Wiley & Sons, Inc.
- Kaplan, R. S., & Norton, D. P. (1996). Translating strategy into action: The balanced scorecard. Boston, MA: Harvard Business School Press.
- Katz, E., Lazarsfeld, P. F., & Roper, E. (1955). Personal influence: The part played by people in the flow of mass communications (2nd ed.). New Brunswick, NJ: Transaction.
- Kheang, S. (2018) Guidelines for USA teacher leadership in adult classrooms to enhance international undergraduate satisfaction [Ed.D. Dissertation]. St. Charles, MO: Lindenwood University.
- Kitchen, D., & McDougall, D (1998). Collaborative learning on the internet. Journal of Educational Technology Systems, 27(3), 245-258. doi:10.2190/5h41-k8vu-nrfjpdyk
- Knowles, M. S., Holton III, E. F., & Swanson, R. A. (2015). Introduction. In *The adult learner: The definitive classic in adult education and human resource development* (8th ed., pp. 1-3) New York, NY: Routledge.
- Kubiak, T. M. (2012). *The certified Six Sigma Master Black Belt* (1st ed.). Milwaukee,WI: ASQ Quality Press.
- Kubiak, T. M., & Benbow, D. W. (2009). Leadership. In Kubiak, T. M., *The certified Six Sigma Black Belt Handbook* (2nd ed., p. 17). Milwaukee, WI: ASQ, Quality Press

- Kumar, V. (2013). Introduction. In *101 design methods: A structured approach for driving innovation in your organization* (1st ed., p. 6). Hoboken, NJ: John Wiley & Sons, Inc.
- Kuo, Y., Walker, A. E., Belland, B. R., & Schroder, K. E. (2013). A predictive study of student satisfaction in online education programs. *The International Review of Research in Open and Distributed Learning*, *14*(1), 16. doi:10.19173/irrodl.v14i1.
  1338
- Liker, J. K., & Convis, G. L. (2011). The Toyota way to lean leadership: Achieving and sustaining excellence through leadership development. New York, NY: McGraw-Hill.
- Loethen, L. L. (2008). Six Sigma leadership: A study of Six Sigma Black Belts in conjunction with transactional and transformational leadership. Irvine, CA: Universal-Publishers.
- Mahlendorf, M. D. (2008). Management accounting & control scales handbook. *Controlling & Management*, 52(4):273-273. doi:10.1007/s12176-008-0071-y
- Maxwell, J. C., & Dornan, J. (1997). *Becoming a person of influence: How to positively impact the lives of others* (1st ed.). Nashville, TN: Thomas Nelson, Inc.
- McLemore, C. W. (2014). *Inspiring trust: Strategies for effective leadership*. Santa Barbara, CA: Praeger.
- Merriam, S. B., & Bierema, L. L. (2014). Adult learners in today's world. In *Adult learning: Linking theory and practice* (1st ed., Ch. 1). Hoboken, NJ: John Wiley & Sons, Inc.

- Mullins, L. J. (2005). *Management and organizational behavior* (7th ed.). Harlow, England: Prentice Hall/Financial Times.
- Nadler, Z., & Nadler, L. (2012). Designing and using models. In Designing training programs: The critical events model (2nd ed., Ch. 1). Hoboken, NY: Taylor and Francis.
- Oakland, J. S. (2014). Models and frameworks for total quality management. In *Total Quality Management* (3rd ed., pp. 10-30). New York, NY: Routledge Taylor & Frances Group.
- O'Connor, B. N., Bronner, M., & Delaney, C. (2007). Putting learning at work into perspective. In *Learning at work: How to support individual and organizational learning* (1st ed., pp. 3-32). Amherst, MA: HRD Press.
- Pyzdek, T., & Keller, P. A. (2014). The Six Sigma handbook: A complete guide for green belts, black belts, and managers at all levels (4th ed.). New York, NY: McGraw-Hill.
- Rampersad, H. K., & El-Homsi, A. (2007). Implementing TPS Lean Six Sigma. In TPS-Lean Six Sigma: Linking human capital to Lean Six Sigma - A new blueprint for creating high performance companies (1st ed., pp. 177-218). Charlotte, NC: IAP/Information Age Pub.
- Sayer, N., & Williams, B. (2012). *Lean for dummies* (2nd ed.). Hoboken, NJ: Wiley.
- Sicilia, M. A. (2007). Competencies in organizational e-learning: Concepts and tools. Hershey PA: Information Science Pub.
- Smith, B. (2003). The role of leadership. In Lean and Six Sigma A one-two punch. Milwaukee, WI: ASQ - Quality Progress.

- So, H., & Brush, T. A. (2008). Student perceptions of collaborative learning, social presence and satisfaction in a blended learning environment: Relationships and critical factors. *Computers & Education*, 51(1), 318-336. doi:10.1016/j.compedu. 2007.05.009
- Sweet, S., & Silver, B. (2014). The BPI blueprint: A step-by-step guide to make your business process improvement projects simple, structured, and successful.
   Altadena, CA: Cody-Cassidy Press.
- Taghizadegan, S. (2006). Roles and responsibilities to Lean Six Sigma philosophy and strategy. In *Essentials of Lean Six Sigma* (Ch. 7). Amsterdam, The Netherlands: Elsevier.
- Tsigkas, A. C. (2013). The Lean Enterprise. In *The Lean Enterprise from the mass* economy to the economy of one (p. 1-10). Berlin, Heidelberg: Springer-Verlag.
- Verma, S. (2013). Soft skills. In *Personality development and soft skills for class XI* (1st ed., p. 19-40). Prakashan, New Delhi, India: Roshan Lal Goyal for Goyal Brothers.
- Watson-Hemphill, K., & Bradley, K. N. (2016). Innovating Lean Six Sigma: A strategic guide to deploying the world's most effective business improvement process (1st ed.). New York, NY: McGraw-Hill
- Womack, J. P., & Jones, D. T. (2003). Value. In Lean thinking: Banish waste and create wealth in your corporation (2nd ed., pp. 29-36). New York, NY: Simon & Schuster.

Womack, J. P., Jones, D. T., & Roos, D. (2007). The industry of industries in transition.In *The machine that changed the world* (3rd ed., pp. 9-14). New York, NY: Free Press - Simon & Shuster, Inc.

#### Appendices

#### Appendix A

From: BAUCUM, SCOTT B [AG/1000]

Sent: Friday, November 21, 2014 4:17 PM

To: ANDERSON, TERESA A [AG/1000]

Cc: BUSINESS, CONDUCT [AG/1000]

Subject: RFG: Use of Monsanto Assets and Conflicts of Interest request

Terri, it was very good to meet with you yesterday and to get to know you and learn about your professional development plans. I reviewed your IRB approval and we discussed your need to request interviews of your peers and others here at Monsanto and utilize documents that we currently deploy across our operations to complete your research for your dissertation. I also understand your sense of urgency in accomplishing these things prior to the winter holiday break in late December. In our discussion, I directed that you may not use Monsanto confidential or proprietary information. You may not use information that we have licensed from others who claim copyright or proprietary protection on that material. However, you may develop your own documents on inspiration from those tools that we use in our environment as long as the proprietary nature of those documents would remain secure. I also noted that I may not be able to know whether such a tool is proprietary, but that Ken Poole would be in a position to guide you on that determination. Likewise, you may conduct interviews of other Monsanto employees as long as those employees know their participation is voluntary.

These interviews may be conducted while you are at work, but the schedule of interviews cannot interfere with work deliverables for any employee, including yourself. Monsanto observes a reasonable use exception to such things and you are requested to respect that our work environment can be intense and that employees do not have a lot of time to offer outside of their direct responsibilities. It is a good idea to keep good communication between yourself and your People Leader as well as with any employee you interview to assure a minimal impact to Monsanto's work environment. Finally, Terri, it would be great if you could share any learnings with Ken so that we can benefit from our investment of time in your research. I personally wish you good luck and clear focus as you tackle the monumental task of completing this work in this tight timeframe. Good Luck and please advise if you need any further clarification.

Most Respectfully,

Scott Baucum Director, Business Conduct Monsanto

# **Appendix B**

# **Competencies of an Educator of Adults**

- 1. Use a variety of teaching techniques
- 2. Use buzz groups (learners placed in groups to discuss
- 3. Believe that your primary goal is to provide learners as much information as possible
- 4. Feel fully prepared to teach
- 5. Have difficulty understanding learner point-of-view
- 6. Expect and accept learner frustration as they grapple with problems
- 7. Purposefully communicate to learners that each is uniquely important
- 8. Express confidence that learners will develop the skills they need
- 9. Search for or create new teaching techniques
- 10. Teach through simulations of real-life
- 11. Teach exactly what and how you have planned
- 12. Notice and acknowledge to learners' positive changes in them
- 13. Have difficulty getting your point across to learners
- 14. Believe that learners vary in the way they acquire, process, and apply subject matter knowledge
- 15. Really listen to what learners have to say
- 16. Trust learners to know what their own goals, dreams, and realities are like
- 17. Encourage learners to solicit assistance from other learners
- 18. Feel impatient with learner's progress
- 19. Balance your efforts between learner content acquisition and motivation
- 20. Try to make your presentations clear enough to forestall all learner questions
- 21. Conduct group discussions
- 22. Establish instructional objectives
- 23. Use a variety of instructional media? (Internet, distance-learning, interactive videos, videos, etc.)
- 24. Use listening teams (learners grouped together to listen for a specific purpose) during lectures
- 25. Believe that your teaching skills are as refined as they can be
- 26. Express appreciation to learners who actively participate
- 27. Experience frustration with learner apathy
- 28. Prize the learner's ability to learn what is needed
- 29. Feel learners need to be aware of and communicate their thoughts and feelings
- 30. Enable learners to evaluate their own progress in learning
- 31. Hear what learners indicate their learning needs are
- 32. Have difficulty with the amount of time learners need to grasp various concepts
- 33. Promote positive self-esteem in the learners
- 34. Require learners to follow the precise learning experiences you provide them

- 35. Conduct role plays
- 36. Get bored with the many question's learners ask
- 37. Individualize the pace of learning for each learner
- 38. Help learners explore their own abilities
- 39. Engage learners in clarifying their own aspirations
- 40. Ask the learners how they would approach a learning task
- 41. Feel irritation at learner inattentiveness in the learning setting
- 42. Integrate teaching techniques with subject matter content
- 43. Develop supportive relationships with your learners
- 44. Experience unconditional positive regard for your learners
- 45. Respect the dignity and integrity of the learners

#### **Organizational Learning Capabilities – Elements of its Meaning**

- 46. Experimentation-Trying new ideas, curious about how things work, change in work process
- 47. Risk Taking-Tolerance of ambiguity, uncertainty and learning from mistakes and errors
- 48. Interaction with the External Environment-Scope of relationships with the external environment
- 49. Dialogue-A process of collective inquiry/communication into certainties of everyday experiences
- 50. Participative Decision Making [DM]-The level of influence, ownership employees have in DM

#### Competencies / Management Strategies of Visionary Leadership

- 51. Attention through Vision- So compelling it brings others to a place they have not been before
- 52. Meaning through Communication Makes dreams & visions apparent so others align with them
- 53. Trust through Positioning Reliable, Consistent, Congruent, Constant with talk and walk matching
- 54. Deployment of Self through Knowing One's skills and displaying them effectively through:
- a.Positive Self-Regard Knowing themselves, their strengths and nurturing them; and,
- b.The Wallenda Factor Capacity for concentration on the intention, the task, and the decision

# Appendix B-1

# **MODIFIED INSTRUCTIONAL PERSPECTIVES INVENTORY**

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Listed below are 45 statements reflecting beliefs, feelings, and behaviors beginning or seasoned teachers of adults may or may not possess at a given moment. Please indicate how frequently each statement <u>typically applies to trainers</u> as they work with adult learners. Circle the number that best describes the trainer. Circle (0) the letter that best describes you.

	<u>How Frequently do you:</u>		A=1 Almost Never	B=2 Not Often	C=3 Sometimes	D=4 Usually	E=5 Almost Always
1.	Use a variety of teaching techniques?	A	A B	С	D	E	
2.	Use buzz groups (learners placed in groups to discuss)	A	КВ	C	D	Е	
3.	Believe that your primary goal is to provide learners as much information as possible?	A	. В	C	D	E	
4.	Feel fully prepared to teach?	A	В	C	D	E	
5.	Have difficulty understanding learner point-of-view?	A	В	C	D	Е	
6.	Expect and accept learner frustration as they grapple with problems?	A	В	С	D	E	
7.	Purposefully communicate to learners that each is uniquely important?	A	В	С	D	E	
8.	Express confidence that learners will develop the skills they need?	A	В	С	D	E	

# ANDRAGOGY AND LEAN SIX SIGMA

- 9. Search for or create new teaching techniques?
- 10. Teach through simulations of real-life?
- 11. Teach exactly what and how you have planned?
- 12. Notice and acknowledge to learners' positive changes in them?
- 13. Have difficulty getting your point across to learners?

А	В	С	D	Е
A	В	С	D	Е
А	В	С	D	Е
А	В	С	D	Е
А	В	С	D	Е

<u>How Frequently do you:</u>	A=1 Almost Never	B=2 Not Often	C=3 Sometimes	D=4 Usually	E=5 Almost Always	
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# ANDRAGOGY AND LEAN SIX SIGMA

14.	Believe that learners vary in the way they acquire, process, and apply subject matter knowledge?	А	В	С	D	Е
15.	Really listen to what learners have to say?	А	В	С	D	Е
16.	Trustlearnerstoknow what their own goals, dreams, and realities are like?	А	В	С	D	Е
17.	Encourage learners to solicit assistance from other learners?	А	В	С	D	Е
18.	Feel impatient with learner's progress?	А	В	С	D	Е
19.	Balance your efforts between learner content acquisition and motivation?	А	В	С	D	E
20.	Trytomakeyourpresentationsclearenoughtoforestallall learner questions?	А	В	С	D	E
21.	Conduct group discussions?	А	В	С	D	Е
22.	Establish instructional objectives?	А	В	С	D	Е
23.	Use a variety of instructional media? (internet, distance, interactive video, videos, etc.)	А	В	C	D	Е
24.	Uselistening teams (learners grouped together to listen for a specific purpose) during lectures?	А	В	С	D	Е
25.	Believe that your teaching skills are as refined as they can be?	А	В	С	D	Е
26.	Express appreciation to learners who actively participate?	А	В	С	D	Е
27.	Experience frustration with learner apathy?	А	В	С	D	Е
28.	Prize the learner's ability to learn what is needed?	А	В	С	D	Е
29.	Feellearners need to be aware of and communicate their thoughts and feelings?	А	В	C	D	E
30.	Enable learners to evaluate their own progress in learning?	А	В	С	D	E

<u>How Frequently do you:</u>	A=1 Almost Never	B=2 Not Often	C=3 Sometimes	D=4 Usually	E=5 Almost Always
31. Hear what learners indicate their learning needs are?	A	В	С	D	Е
32. Have difficulty with the amount of time learners need to grasp various concepts?	А	В	С	D	Е
33. Promote positive self-esteem in the learners?	А	В	С	D	Е
34. Require learners to follow the precise learning experiences you provide them?	A	В	С	D	E
35. Conduct roleplays?	А	В	С	D	Е
36. Get bored with the many questions learners ask?	А	В	С	D	Е
37. Individualize the pace of learning for each learner?	А	В	С	D	Е
38. Help learners explore their own abilities?	A	В	C	D	E
39. Engage learners in clarifying their own aspirations?	A	В	C	D	E
40. Ask the learners how they would approach a learning task?		Б	U	D	Б
41. Feel irritation at learner inattentiveness in the learning setting?	А	В	С	D	Е
42. Integrate learning techniques with subject matter content?	А	В	С	D	Е
43. Develop supportive relationships with your learners?	А	В	С	D	Е
44. Experience unconditional positive regard for your learners?	А	В	С	D	Е
45. Respect the dignity and integrity of the learners?	А	В	С	D	Е

# INSTRUCTORS PERSPECTIVE INVENTORY FACTORS

(1)	(2)	(3)	(4)	(5)	(6)	(7)
4	7	1	6	5	2	3
12	8	9	14	13	10	11
19	16	22	15	18	21	20
26	28	23	17	27	24	25
33	29	42	37	32	35	34
	30		38	36		
	31		40	41		
	39					
	43					
	44					
	45					
Total						

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Scoring Process

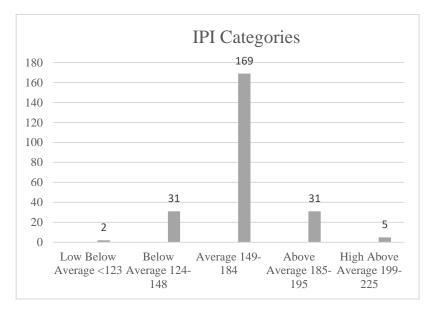
A = 1, B = 2, C = 3, D = 4, E = 5

Reversed scored items are 3, 5, 11, 13, 18, 20, 25, 27, 32, 34, 36, and 41. These reversed items are scored as follows: A = 5, B = 4, C = 3, D = 2, and # = 1

	FACTORS	TOTAL	POSSIBLE MINIMUM	POSSIBLE MAXIMUM
1.	Trainer Empathy with Learners		5	25
2.	Trainer trust of Learners		11	55
3.	Planning and Delivery of Instruction		5	25
4.	Accommodating learner uniqueness		7	35
5.	Trainer insensitivity/sensitivity toward learner		7	35
6.	Learner-centered learning process		5	25
7.	Teacher-centered learning process		5	25
	Grand Total			

Use of Andragogical Principles Category Levels										
Category Levels Percentage IPI Score										
High above average	89 - 100%	225 - 199								
Above average	88 - 82%	198 - 185								
Average	81 - 66%	184 - 149								
Below average	65 - 55%	148 - 124								
Low below average	54%	<123								

#### Items constituting the seven factors of the



#### **Modified Instructional Perspectives Inventory**

Seven Factors under IPI	IPI Item
1. Teacher empathy with Learners	4, 12, 19, 26, 33
2. Trainer trust of Learner	7, 8, 16, 28, 29, 30, 31, 39, 43, 44, 45
3. Planning and delivery of instructions	1, 9, 22, 23, 42
4. Accommodating learner uniqueness	6, 14, 15, 17, 37, 38, 40
5. Teacher insensitivity toward Learners	5, 13, 18, 27, 32, 36, 41
6. Learner-centered learning process	2, 10, 21, 24, 35
7. Teacher-centered learning process	3, 11, 20, 25, 34

#### **Factors with Items**

#### Factor #1 – Teacher Empathy with Learners – Your Trainer

- 4. feels fully prepared to teach?
- 12. notices and acknowledges to learner's positive changes in them?
- 19. balances your efforts between learner content acquisition and motivation?
- 26. expresses appreciation to learners who actively participate?
- 33. promotes positive self-esteem in learners?

#### Factor #2 – Teacher Trust of Learners – Your Trainer

- 7. purposefully communicates to learners that each is uniquely important?
- 8. expresses confidence that learners will develop the skills they need?
- 16. trusts learners to know what their own goals, dreams, and realities are like?
- 28. prizes the learner's ability to learn what is needed?

#### ANDRAGOGY AND LEAN SIX SIGMA

- 29. feels learners need to be aware of and communicate their thoughts and feelings?
- 30. enables learners to evaluate their own progress in learning?
- 31. hear what learners indicate their own needs are?
- 39. engages learners explore their own abilities?
- 43. develops supportive relationships with your learners?
- 44. experiences unconditional positive regard for her/his learners?
- 45. respects the dignity and integrity of the learners?

#### Factor #3 – Planning and Delivery of Instruction – Your Trainer

- 1. uses a variety of teaching techniques?
- 9. searches for or create new teaching techniques?
- 22. establishes instructional objectives?
- 23. uses a variety of instructional media? (Internet, distance, interactive video, videos, etc.)?
- 42. integrates teaching techniques with subject matter content?

#### Factor #4 – Planning and Delivery of Instruction – Your Trainer

- 6. expects and accepts learner frustration as they grapple with problems?
- 14. believes that learners vary in the way they acquire, process, and apply subject matter knowledge?
- 15. really listen to what learners have to say?
- 17. encourages learners to solicit assistance from other learners?
- 37. individualizes the pace of learning from other learners?
- 38. helps learners explore their own abilities?
- 40. asks the learners how they would approach a learning task?

#### Factor #5 – Teacher Insensitivity toward Learners – Your Trainer

- 5. has difficulty understanding learner points-of-view?
- 13. has difficulty getting your point across to learners?
- 18. feels impatient with learner's progress?
- 27. experiences frustration with learner apathy?
- 32. has difficulty with the amount of time learners need to grasp various concepts?
- 36. gets bored with the many questions' learners ask?
- 41. feels irritation at learner inattentiveness in the learning setting?

# Factor #6 – Learner-centered (Experienced-based) Learning Process – Your Trainer

- 2. uses buzz groups (learners placed in groups to discuss information from lectures)?
- 10. teaches through simulations of real-life settings?
- 21. conducts group discussions?
- 24. uses listening teams (learners grouped together to listen for a specific purpose) during lectures?
- 35. conducts role plays?

# Factor #7 – Teacher-centered Learning Process – Your Trainer

- 3. believes that your primary goal is to provide learners as much information as possible?
- 11. teaches exactly what and how you have planned?
- 20. tries to make her/his presentations clear enough to forestall all learner questions?
- 25. believes that your teaching skills are refined as they can be?
- 34. requires learners to follow the precise learning experience she/he provides them?

# Appendix B-2

# Merging the Modified Instructional Perspectives Inventory with

**Organizational Learning Capabilities In Andragogy: Leader Management of** 

Factor #1 Teacher Emplo	thy with	/	/	in the second second	Participation C	Cession Mating
y prepared to teach				V		
and acknowledges to learners'				V		

	-			
4. Feels fully prepared to teach			Ń	
<ol> <li>Notices and acknowledges to learners' positive changes in them</li> </ol>			V	
19. Balances her/his efforts between learner content acquisition and motivation		V		
26. Expresses appreciation to learners who actively participate			V	Ń
33. Promotes positive self-esteem in learners	Ń	V	V	

	- Elever	/ `	/	/	Mating Dor
Factor #2 Teacher 1	Trust of Le	earners –	Your Tea	cher	
7. Purposefully communicates to learners that each is uniquely important				N	
<ol><li>Expresses confidence that learners will develop the skills they need</li></ol>	N				
16. Trusts learners to know what their own goals, dreams, and realities are like					N
28. Prizes the learner's ability to learn what is needed	٦	N			
29. Feels learners need to be aware of and communicate their thoughts and feelings				V	
30. Enables learners to evaluate their own progress in learning					V
31. Hear what learners indicate their learning needs are				V	٧
39. Engages learners in clarifying their own aspirations				~	
43. Develops supportive relationships with her/his learners		N	V	~	
44. Experiences unconditional positive regard for her/his learners		N		~	V
45. Respects the dignity and integrity of the learners?				N	V

subject matter content

Contraction With the Contraction of the Contraction								
Factor #3 Planning and Delivery of Instruction–Your Teacher								
1. Uses a variety of teaching techniques	N							
9. Searches for or creates new teaching techniques		V	V					
22. Establishes instructional objectives				N	√			
23. Uses a variety of instructional media? (Internet, distance learning, interactive video, videos, etc.)	N		4					
42. Integrates teaching techniques with	N							

Crocontention Crocontention Crocontention Crocontention Crocontention Crocontention Crocontention Crocontention
Lancingue Contraction of the Con

Factor #4 Accommodatin	ıg Learner	Uniquen	ess – You	r Teacher	
<ol> <li>Expects and accepts learner frustration as they grapple with problems.</li> </ol>		N		N	
14. Believes that learners vary in the way they acquire, process, and apply subject matter knowledge		V			
15. Really listens to what learners have to say				N	
17. Encourages learners to solicit assistance from other learners			V	V	
37. Individualizes the pace of learning from other learners	N	٦		V	
38. Helps learners explore their own abilities	N	V	V	V	N
40. Asks the learners how they would approach a learning task	N				V

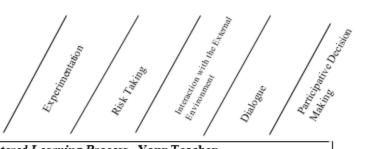
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Factor #5 Teacher Insensitivity toward Learners– Your Teacher							
5. Has difficulty understanding learner's point of view				N			
13. Has difficulty getting her/his point across to learners				V			
18. Feels impatient with learner's progress							
27. Experiences frustration with learner apathy		N		N			
<ol> <li>Have difficulty with the amount of time learners need to grasp various concepts</li> </ol>		N					
36. Gets bored with the many questions learners ask		V	V		~		
41. Feels irritation at learner inattentiveness in the learning setting?		N					

Electric with the Andring Devision Crownship Right Partie Dialo Bue

Factor #5 Teacher Sensitivity toward Learners- Your Teacher							
5. Has difficulty understanding learner's point of view				V			
<ol> <li>Has difficulty getting her/his point across to learners</li> </ol>				4			
18. Feels impatient with learner's progress				2			
27. Experiences frustration with learner apathy		V					
32. Have difficulty with the amount of time learners need to grasp various concepts		N		V			
36. Gets bored with the many questions' learners ask		V			N		
41. Feels irritation at learner inattentiveness in the learning setting?		N					

Especimonation Especimonation differences faither that is an interesting that is a set of the set o							
Factor #6 Learner-centered [Experienced-based] Learning Process– Your Teacher							
<ol> <li>Uses buzz groups (learners placed in groups to discuss) information from lectures.</li> </ol>			V	V			
10. Teaches through simulations of real-life			V	V			
21. Conducts group discussions			V	N	V		
24. Uses listening teams (learners grouped together to listen for a specific purpose) during lectures				V			
35. Conducts role plays	N						



Factor #7 Teacher-centered Learning Process–Your Teacher							
3. Believes that her/his primary goal is to provide learners as much information as possible?				V			
11. Teaches exactly what and how she/he has planned?		V					
20. Tries to make her/his presentations clear enough to forestall all learner questions				V			
25. Believes that her/his teaching skills are as refined as they can be		N					
34. Requires learners to follow the precise learning experiences she/he provides them		V		V			

# **Organizational Learning Capabilities – Elements of its Meaning**

# 1. Experimentation:

- The degree to which new ideas and suggestions are attended to and dealt with sympathetically.
- Involves trying out new ideas.
- Being curious about things work.
- Carrying out changes in work process.

# 2. <u>Risk Taking</u>:

- Tolerance of ambiguity, uncertainty and errors.
- An important trait for organizations to develop
- Effective organizations accept and learn from failure and mistakes.

# 3. Interaction with the External Environment:

- The scope of relationships with the external environment.
- Organizations have to keep up with the external environment; thus,
- Interaction with the external environment plays a major role in organizational learning and development.

# 4. Dialogue:

- A sustained collective inquiry into:
- The processes
- The assumptions and
- The certainties
  - ∽ That make up every day experience.
- A process to create an understanding of communication. Therefore, is a crucial factor for organizational learning

# 5. <u>Participative Decision Making</u>:

- The level of influence employees has in the decision making process
- By supporting participative decision-making organizations benefit by increasing
- Employment involvement,
- Job satisfaction,
- Organizational commitment, and
- Ownership of decision outcomes.

# This researcher believes

# The Seven Factors of the

Instructional perspectives inventory

# **Influence**

# The Five Dimensions of Organizational Learning Capability and

**<u>Promote</u>** organizational learning.

The <u>Seven + Five</u> are reciprocal in nature and cooperate to enhance the productivity of the organization.

#### Organizational Learning Capabilities [OLC] -

**Dimensions / Elements of its Meaning** 

- 1. Experimentation = E
- 2. Risk Taking = R
- 3. Interaction with the External Environment = I
- 4. Dialogue = D

II.

III.

IV.

V.

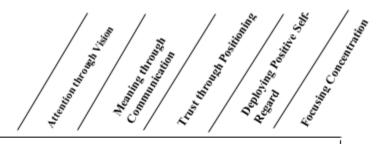
VI.

- 5. <u>Participative Decision Making = P</u> Factors in the Modified Instructional Perspectives Inventory [MIPI]
  - I. **Teacher Empathy toward Learners – Total = 8**
  - E 1 • **R** - 2 I - 0 • **D** - 4 • **P**-1 • **Teacher Trust of Learners – Total = 18** E - 2 • **R** - 3 I - 1 D - 7 **P** - 5 • **Planning and Delivery of Instruction – Total = 8** E – 3 • **R** – 1 I - 2**D** – 1 • **P** – 1 • Accommodating Learner Uniqueness – Total = 14 • E-3R – 4 I - 2**D** – 3 P-2Teacher Insensitivity/Sensitivity to Learners - Total = 9  $\mathbf{E} - \mathbf{0}$ • R – 5 • I = 0• **D** – 3 • **P**-1 Learner-Centered Learning Processes – Total = -- 9 E – 1 ٠  $\mathbf{R} - \mathbf{0}$ I - 3**D** – 4 **P** – 1 VII. **Teacher-Centered Learning Processes -- 6**  $\mathbf{E} - \mathbf{0}$ •
    - R 3•
    - I = 0•
    - **D** 3 •
    - **P** 0 **STRENGTHENING ELEMENTS GRAND TOTAL = 72** •

# **Appendix B-3**

# Merging the Modified Instructional Perspectives Inventory with

Leader Strategies for Taking Charge in Andragogy: Leader Management of

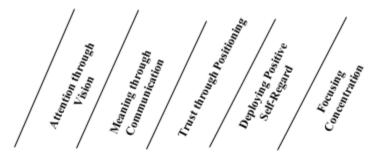


Factor #1 Teacher Empathy with Learners – Your Teacher

4. Feels fully prepared to teach	V		V
12. Notices and acknowledges to learners' positive changes in them	V	V	
19. Balances her/his efforts between learner content acquisition and motivation	V	V	
26. Expresses appreciation to learners who actively participate	V	V	
33. Promotes positive self-esteem in learners	V	V	

Training the second second Focusing Concentration Areonopolitical and a second Maning the second second Self ne and a since a since

Factor #2 Teacher 7	Trust of Le	<i>arners –</i> Your Te	acher	
7. Purposefully communicates to learners that each is uniquely important		N		
8. Expresses confidence that learners will develop the skills they need		N		
16. Trusts learners to know what their own goals, dreams, and realities are like		٦		
28. Prizes the learner's ability to learn what is needed		V		
29. Feels learners need to be aware of and communicate their thoughts and feelings		V		
30. Enables learners to evaluate their own progress in learning		N		
31. Hear what learners indicate their learning needs are		V		
39. Engages learners in clarifying their own aspirations		V		
<ol> <li>Develops supportive relationships with her/his learners</li> </ol>		V		
44. Experiences unconditional positive regard for her/his learners		V		
45. Respects the dignity and integrity of the learners?		V		



Factor #3 Planning and Delivery of Instruction–Your Teacher						
1. Uses a variety of teaching techniques	N					
9. Searches for or creates new teaching techniques	V					
22. Establishes instructional objectives	N					
23. Uses a variety of instructional media? (Internet, distance learning, interactive video, videos, etc.)	V					
42. Integrates teaching techniques with subject matter content	N					

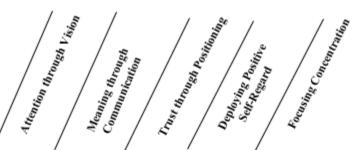


Factor #4 Accommodatin	g Learner	Uniquen	ess – You	r Teacher	
<ol> <li>Expects and accepts learner frustration as they grapple with problems.</li> </ol>		V			
14. Believes that learners vary in the way they acquire, process, and apply subject matter knowledge		V			
15. Really listens to what learners have to say		V			
17. Encourages learners to solicit assistance from other learners		N			
37. Individualizes the pace of learning from other learners		٦			
38. Helps learners explore their own abilities		V			
<ol> <li>Asks the learners how they would approach a learning task</li> </ol>		N			

Focussing Concentration Attention through Vision Deploying Positive Sett Resard Me<sup>anling</sup> through Communication Trust through Postioning

• Factor #5 Teacher Inser	nsitivity towa	ırd Learner	rs– Your Te	acher	
<ol> <li>Has difficulty understanding learner's point of view</li> </ol>	N			N	
<ol> <li>Has difficulty getting her/his point across to learners</li> </ol>	N			N	
18. Feels impatient with learner's progress	N			N	
27. Experiences frustration with learner apathy	N			V	
32. Have difficulty with the amount of time learners need to grasp various concepts	N			V	
36. Gets bored with the many questions learners ask	N		N	V	
41. Feels irritation at learner inattentiveness in the learning setting?	N			N	

#		Attention th.	/	/	/	Focusing Concentration
	Factor #5 Teacher Sen	sitivity towar	rd Learners	– Your Tea	cher	
	5. Has difficulty understanding learner's point of view	N			V	
	<ol> <li>Has difficulty getting her/his point across to learners</li> </ol>	N			V	
	18. Feels impatient with learner's progress	N			V	
	27. Experiences frustration with learner apathy	V	V		N	
	32. Have difficulty with the amount of time learners need to grasp various concepts	V			V	
	36. Gets bored with the many questions learners ask	N			V	
	41. Feels irritation at learner inattentiveness in the learning setting?	V			N	



Factor #6 Learner-centered [Exp	perienced-bas	ed] Learning	Process-Yo	ur Teacher	
<ol> <li>Uses buzz groups (learners placed in groups to discuss) information from lectures.</li> </ol>		V			
10. Teaches through simulations of real- life		Ń			
21. Conducts group discussions		N			
24. Uses listening teams (learners grouped together to listen for a specific purpose) during lectures		V			
35. Conducts role plays		N			



Factor #7 Teacher-cent	tered Learni	ng Process	– Your Tea	cher	
3. Believes that her/his primary goal is to provide learners as much information as possible?					N
11. Teaches exactly what and how she/he has planned?					V
20. Tries to make her/his presentations clear enough to forestall all learner questions					V
25. Believes that her/his teaching skills are as refined as they can be					V
34. Requires learners to follow the precise learning experiences she/he provides them					V

# Leader Strategies for Taking Charge [LSTC] – Dimensions / Elements of its

# Meaning

Management of:

- 1. <u>Attention through Vision = AV</u>
- 2. <u>Meaning through Communication = MC</u>
- 3. <u>Trust through Positioning = TP</u>
- 4. **Positive Self-Regard = PS**
- 5. <u>Focusing Concentration = FC</u> <u>Factors in the Modified Instructional Perspectives Inventory [MIPI]</u>
  - I. Teacher Empathy toward Learners –Total = 10
    - AV 0
    - MC 5
    - TP 0
    - PS 4
    - FC 1
  - **II.** Teacher Trust of Learners Total = 11
    - AV 0
    - MC 0
    - TP 11
    - PS 0
    - FC 0
  - **III.** Planning and Delivery of Instruction Total = 5
    - AV 5
    - MC 0
    - **TP 0**
    - **PS 0**
    - FC 0
  - **IV.** Accommodating Learner Uniqueness Total = 7
    - AV 0
    - MC 7
    - TP 0
    - PS 0
    - FC 0
  - V. Teacher Insensitivity/Sensitivity to Learners Total = 14
    - AV 7
    - MC 0
    - TP -0
    - PS- 7
    - FC 0
  - VI. Learner-Centered Learning Processes Total = -- 5
    - AV 5
    - MC 0
    - TP 0
    - **PS 0**
    - FC -0
  - VII. Teacher-Centered Learning Processes -- 5
    - AV 0
    - MC 0
    - **TP 0**
    - **PS 0**
    - FC 5 <u>STRENGTHENING ELEMENTS GRAND TOTAL = 57</u>

# **Appendix B-4**

# The 4 Competencies of Leadership

Warren Bennis interviewed 90 outstanding leaders and their subordinates, with the intentions of learning what makes real leaders (as opposed to effective managers) tick. After five years of research and thought, he identified four competencies common to all 90 leaders, and they're presented in Training & Development Journal's fortieth anniversary series of articles by major figures in human resource development. **By Warren Bennis** 

For nearly five year I have been researching a book on leadership. During this period, I have traveled around the country spending time with 90 of the most effective, successful leaders in the nation; 60 from corporations and 30 from the public sector.

My goal was to find these leaders' common traits, a task that has required much more probing than I expected. For a while, I sensed much more diversity than commonality among them. The group comprises both left-brain and right-brain thinkers; some who dress for success and some who don't; well-spoken, articulate leaders and laconic, inarticulate ones; some John Wayne types and some who are definitely the opposite. Interestingly, the group includes only a few stereotypically charismatic leaders.

Despite the diversity, which is profound and must not be underestimated, I identified certain areas of competence shared by all 90.

Warren Bennis is Joseph DeBeff Chair of Management and Organization at the University of California School of Business Administration, Los Angeles. He has been an advisor to the last four U.S. presidential administration and he serves on ASTD's Board of Governors.

1984, Warren Bennis

# VISIONARY LEADERSHIP

## Management of

## - ATTENTION THROUGH VISION

- ✤ Makes people want to join in with her/him
- Enrolls people in a compelling vision that brings others to a place they have not been before
- ✤ Does not waste peoples time
- ✤ Knows exactly what (s)he wants
- ♦ United others with his/her intention and outcome, goal or direction
- ✤ His/her intentions (vision) always evident

# - MEANING THROUGH COMMUNICATION

- ✤ Makes dreams apparent to others
- ✤ Aligns people with his/her dreams
- Uses metaphors clear to others and with which people can identify
- ♦ Makes ideas tangible and real so people can support them
- Creates meaning, not merely explanation or clarification of a goal
- ✤ Integrate facts, concepts, anecdotes into meaning for the public
- ✤ Get their people to understand and support their goals in a variety of ways

# - TRUST THROUGH POSITIONING

- Is reliable, constant, focused and all of a piece can be counted on and will not shift positions
- It is clear where he/she is coming from and what he/she stands for, even though others may disagree with it

# - DEPLOYMENT OF SELF THROUGH POSITIVE SELF-REGARD AND THE WALLENDA FACTOR

- \* Knows his/her skills and deploys them effectively
- Know themselves, their strengths and nurture them
- ✤ Concentrates on the intention, the tasks, the decision
- ✤ Unacquainted with the concept of failure
- ✤ Learn from and use something that does not go well
- ✤ Concentrates on winning, not on <u>not</u> losing

# **EMPOWERMENT: THE EFFECTS OF LEADERSHIP**

- <u>People feel significant</u>
   What they do makes a differences to the success of the organization
   What they do has meaning and significance
- Learning and competence matter

   Learning and mastery are valued
   Mistakes give us feedback and tell us what to do next
- 3. <u>People are part of a community</u>

-Where leadership is, there is

a team

a family

- a unity
- -Even people who do not especially like each other feel a sense of community
- 4. Work is exciting

-Where leaders are, work is

stimulating

challenging

fascinating

fun

-Pulling, rather than pushing people toward a goal

energizes people to enroll in an exciting vision of the future

- motivates through identification, rather than through rewards and punishments
- -Leaders articulate and embody the ideals toward which the organization strives

# WHICH VISION?

People can be expected to enroll in an exciting vision which

- Has a concept of <u>quality</u>

\*something appreciated intuitively

\*responded to by a feeling

\*connected intimately with our experience of

meaning

beauty, and

- value
  - in our lives; and closely linked with quality
- Has a concept of dedication, even love of our work

\*it is evoked by quality

\*it is the force that energizes high performance systems that facilitate our work.

## Appendix C

# LEAN SIX SIGMA TRAINERS SOFT SKILLS

## I. Vision

- A. The LSS trainer must communicate a vision of the organization and the vision must be consistent and persistent, in both word and deed
- B. The LSS trainer must be able to change behavior, which does not come easily
- C. The LSS trainer must be able to communication effectively; which is a key aspect of building buy-in (Pyzdek & Keller, 2014, p. 15).
- D. The LSS trainer must set strategies and present visionary leadership (Antony, Vinodh, & Gijo, 2016, p. 19).

## II. Leadership

- A. The LSS trainer must present leadership; which is a style where the leaders engage and motivate followers, while also assisting with the followers' leadership development.
- B. The LSS trainer leadership is crucial to the overall success of an LSS initiative.
- C. The LSS trainer leadership skills are critical to train people that are responsible for accomplishing certain goals and objectives Loethen, 2008, p. 6, 8
- D. The LSS trainer leadership must be able to create an environment of passion and pride. Performance will be the natural result.

E. The LSS trainer leadership must develop trust, trust is critical, and trust comes from the simple acts of treating people with respect and fostering positive relationships Kamin, M. 2013, p. 16.

## III. Empowerment

- A. The LSS trainer must be able to empower and engage participants to be accountable for maintaining their own work processes (Antony et al. 2016, p. 19).
- B. The LSS trainer must present empowerment and engagement; which are critical organizational goals
- C. The LSS trainer must be able to display empowerment and its meaning; which is mutual respect, trust, skill and responsible in actions and getting results
- D. The LSS trainer must display willingness to share power, collaborate to achieve synergy and breakthrough results. Burton, 2011, p. 206, 217

# IV. Communication:

- A. The LSS trainer must be able to communicate effectively verbally and in writing.
- B. The LSS trainer must be able to communicate effectively in public and in private forums
- C. The LSS trainer must be able to work effectively in small group settings
- D. The LSS trainer must be able to understand and carry out instructions to participants Pyzdek, T., & Keller, P. A (2014) p. 28

- E. The LSS trainer must create the power of an organization of openness, trust, and honest communication (Antony et al. 2016, p. 19).
- F. The LSS trainer must define and communicate the strategy to achieve and maintain quality adopted by the organization (Antony et al. 2016) p. 19).

## V. Influence

- A. The LSS trainer must be able to influence those trying to implement change
- B. The LSS trainer must be able to have to influence and get enormous leverage by focusing on initial efforts
- C. The LSS trainer must be able to influence to allow greater changes that the deployment will progress smoothly and receive support. George, 2003, p. 190-191.

## VI. Testing

- A. The LSS trainer must allow learners to do the task unaided, but viewed by the trainer
- B. The LSS trainer must be able to implement the proper teaching method, if the learners fail to complete task, it is a result of the instructor.
- C. The LSS trainer must be able to develop each process step carefully, if so, the learner will not fail.
- D. The LSS trainer must present each process step carefully and properly to develop and train
- E. The LSS trainer must be able to test. Test is as much for the trainer as well as the learner Huntzinger, J (2005). p. 10
- F. The LSS trainer must evaluate the training materials and resources

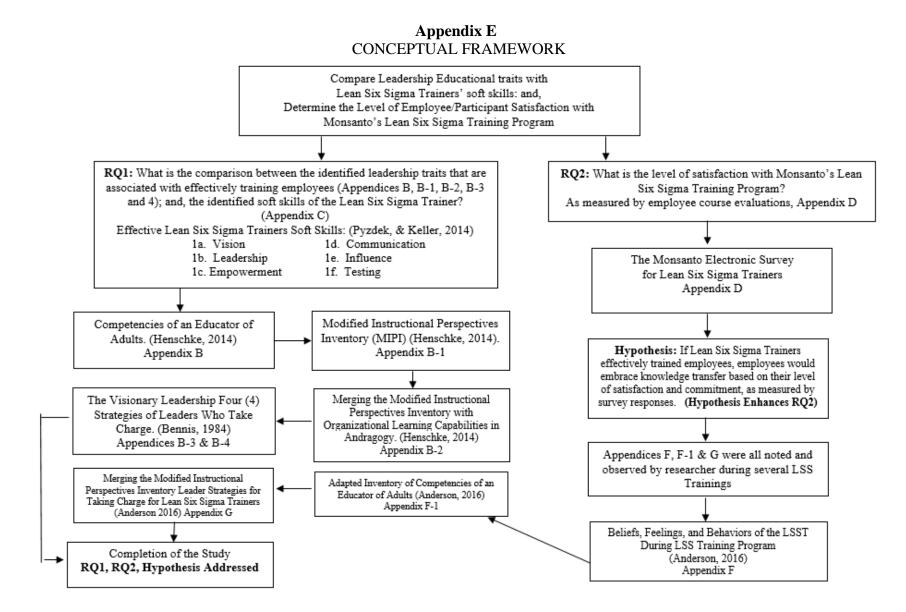
- G. The LSS trainer must show how adult learners are evaluated against training objectives?
- H. The LSS trainer must know how The LSS trainers are evaluated? Kubiak, 2012, p. 272

# Appendix D

# THE BUSINESS PROCESS IMPROVEMENT TRAINING SURVEY

Question #1:	Did you participate in any Business Process Improvement (Green Belt,
	Black Belt, and Lean Event) training at Monsanto?
	Yes
	No
-	Please specify the Business Process Improvement training?
Gre	en Belt Training
_	Black Belt Training
	n Event
	n Practitioner Training
	What was your role during the Business Process Improvement training?
Part	icipant
D	Champion
	cess Owner
	n Six Sigma Trainer
Question #4:	Did the trainer present him/herself as being knowledgeable of the Lean
	Six Sigma material?
	_Yes
	Somewhat
Question #5:	How would you rate the trainer's knowledge and professionalism?
	Black Belt, and Lean Event) training at Monsanto?
	Dissatisfied
	Somewhat Dissatisfied
	Satisfied
	Somewhat Satisfied
	Very Satisfied
Question #6:	How would you rate the training and materials?
	Dissatisfied
	Somewhat Dissatisfied
	Satisfied
	Somewhat Satisfied
	Very Satisfied
Question #7:	What format of training would you have preferred?
-	Ssroom
	E-Learning
Blei	nded Learning
	Ts) Computer-based Training
	WebEx Video Conferencing
Question #8:	Would you recommend this training to others?
-	_Yes
	No

Gree Lean No G	Somewhat Did you receive certification? If so, please specify. en Belt Black Belt Master Black Belt on Practitioner Certification – Participant in Lean Event or Training Did you have support of your manager to participate in this training?
	Yes No Somewhat
Question #11:	What were your expectations of the training?
Question #12:	Were your expectations met? Yes No Somewhat
Question #13:	What would you change about the training?
Question #14:	Are you currently using these tools and knowledge at Monsanto? Yes No Somewhat
Question #15:	What was your overall level of satisfaction of the training? Dissatisfied Somewhat Dissatisfied Satisfied Somewhat Satisfied
Gender:	Very Satisfied Female Male



# Appendix F

#### Key: (E) Trainer Empathy with Learners (TR) Trainer Trust of Learner (P) Planning & Delivery of Instruction (A) Accommodating Learners Uniqueness (S) Trainer Sensitivity toward Learners (LC) Learner-Centered Learning Process (TC) Trainer-Centered Learning Process

# Lean Six Sigma Trainer – Combination of Beliefs, Feelings, and Behaviors

Beliefs		Feelings		Behaviors	
6. expects and accepts learner frustration as they grapple with problems?	Α	4. feels fully prepared to teach?	E	1. uses a variety of teaching techniques?	Ρ
<ol><li>purposefully communicates to learners that each is uniquely important?</li></ol>	TR	5. has difficulty understanding learner points-of-view?	S	2. uses buzz groups (learners placed in groups to discuss information from lectures)?	LC
8. expresses confidence that learners will develop the skills they need?	TR	12. notices and acknowledges to learner's positive changes in them?	E	3. believes that your primary goal is to provide learners as much information as possible?	TC
14. believes that learners vary in the way they acquire, process, and apply subject matter knowledge?	A	13. has difficulty getting your point across to learners?	S	9. searches for or create new teaching techniques?	Ρ
15. really listen to what learners have to say?	Α	18. feels impatient with learner's progress?	S	10. teaches through simulations of real- life settings?	LC
<ol> <li>trusts learners to know what their own goals, dreams, and realities are like.</li> </ol>	TR	19. balances your efforts between learner content acquisition and motivation?	E	11. teaches exactly what and how you have planned?	TC
17. encourages learners to solicit assistance from other learners?	А	26. expresses appreciation to learners who actively participate?	E	20. tries to make her/his presentations clear enough to forestall all learner questions?	TC

# ANDRAGOGY AND LEAN SIX SIGMA

28. prizes the learner's ability to	TR	27. experiences frustration with	s	21. conducts group discussions?	LC
learn what is needed?		learner apathy?		- 1	
29. feels learners need to be aware of and communicate their thoughts and feelings?	TR	32. has difficulty with the amount of time learners need to grasp various concepts?	S	22. establishes instructional objectives?	Ρ
30. enables learners to evaluate their own progress in learning?	TR	33. promotes positive self-esteem in learners?	E	23. uses a variety of instructional media? (Internet, distance, interactive video, videos, etc.)?	Ρ
31. hear what learners indicate their learning needs are?	TR	36. gets bored with the many questions' learners ask?	S	24. uses listening teams (learners grouped together to listen for a specific purpose) during lectures?	LC
37. individualizes the pace of learning from other learners?	A	41. feels irritation at learner inattentiveness in the learning setting?	S	25. believes that your teaching skills are refined as they can be?	TC
38. helps learners explore their own abilities?	A	46. Experimentation-Trying new ideas, curious about how things work, change in work process	TC	35. conducts role plays?	LC
39. engages learners explore their own abilities?	TR	47. Risk Taking-Tolerance of ambiguity, uncertainty and learning from mistakes and errors	LC	34. requires learners to follow the precise learning experience she/he provides them?	TC
40. asks the learners how they would approach a learning task.	A	48. Interaction with the External Environment-Scope of relationships with the external environment	LC	42. integrates teaching techniques with subject matter content?	P
43. develops supportive relationships with your learners?	TR	49. Dialogue-A process of collective inquiry/communication into certainties of everyday experience	TC	52. Meaning through Communication – Makes dreams & visions apparent so others align with them	TC

# ANDRAGOGY AND LEAN SIX SIGMA

44. experiences unco positive regard for h		Making. The l	evel of influence, ployees have in	А	A 53. Trust through Positioning – Relial Consistent, Congruent, Constant with talk and walk matching			TR
45. respects the digr of the learners?	nity and integrity TF	compelling it b	hrough Vision- So orings others to a e not been before	А	<ul> <li>54. Deployment of Self through – Knowing One's skills and displaying them effectively through:</li> <li>a) Positive Self-Regard – Knowing themselves, their strengths and nurturing them; and,</li> <li>b) The Wallenda Factor – Capacity for concentration on the intention, the task, the decision (Kheang, S., 2018)</li> </ul>		TR	
(E) Trainer Empathy	(TR) Trainer Trust of	(P) Planning &	(A) Accomodating		(S)	(LC) Learner-	(TC) Teacher-	

(	()	(-)	()	(~)	(20)	()
Empathy	Trainer Trust of	Planning &	Accomodating	Trainer	Learner-	Teacher-
with	Learners	Delivery of	Learnerss	Sensitivity toward	centered	centered
Learners		Instruction	Uniqueness	Learners	Learning	Learning
					Process	Process
(5)	(13)	(5)	(9)	(7)	(7)	(8)
(-)	()	(-)	(-)			(-)

# **Scoring Process**

The scoring results of Appendix F represented added data that supported the level of satisfaction and the Hypothesis. The highest scores translated the importance observed by the LSS trainer as h/she related to adult learners during training.

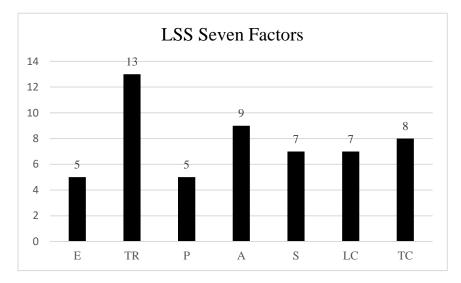


Figure F1. LSS Seven Factors

### LEAN SIX SIGMA TRAINER'S PERSPECTIVE INVENTORY

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Empathy	Trust	Plan &	Accommodating	Sensitivity	Learner-	Teacher-
		Delivery			Centered	Centered
4	7	1	6	5	2	3
12	8	9	14	13	10	11
19	16	22	15	18	21	20
26	28	23	17	27	24	25
33	29	42	37	32	35	34
	30		38	36	47	46
	31		40	41	48	49
	39		50			52
	43		51			
	44					
	45					
	53					
	54					
Total	Total	Total	Total	Total	Total	Total
5	13	5	9	7	7	8

## FACTORS

## FACTORS WITH IPI ITEMS – Lean Six Sigma

# Factor #1 – Teacher Empathy with Learners – Your Trainer

- 4. feels fully prepared to teach?
- 12. notices and acknowledges to learner's positive changes in them?
- 19. balances your efforts between learner content acquisition and motivation?
- 26. expresses appreciation to learners who actively participate?
- 33. promotes positive self-esteem in learners?

## Factor #2 – Teacher Trust of Learners – Your Trainer

- 7. purposefully communicates to learners that each is uniquely important?
- 8. expresses confidence that learners will develop the skills they need?
- 16. trusts learners to know what their own goals, dreams, and realities are like?
- 28. prizes the learner's ability to learn what is needed?
- 29. feels learners need to be aware of and communicate their thoughts and feelings?
- 30. enables learners to evaluate their own progress in learning?
- 31. hear what learners indicate their own needs are?
- 39. engages learners explore their own abilities?
- 43. develops supportive relationships with your learners?
- 44. experiences unconditional positive regard for her/his learners?

- 45. respects the dignity and integrity of the learners?
- 53. Trust through Positioning Reliable, Consistent, Congruent, Constant with talk and walk matching
- 54. Deployment of Self through Knowing One's skills and displaying them effectively through:
  - a) Positive Self-Regard Knowing themselves, their strengths and nurturing them; and,
  - b) The Wallenda Factor Capacity for concentration on the intention, the task, the decision.

# Factor #3 – Planning and Delivery of Instruction – Your Trainer

- 1. uses a variety of teaching techniques?
- 9. searches for or create new teaching techniques?
- 22. establishes instructional objectives?

23. uses a variety of instructional media? (Internet, distance, interactive video, videos, etc.)?

42. integrates teaching techniques with subject matter content?

## Factor #4 - Planning and Delivery of Instruction - Your Trainer

- 6. expects and accepts learner frustration as they grapple with problems?
- 14. believes that learners vary in the way they acquire, process, and apply subject matter knowledge?
- 15. really listen to what learners have to say?
- 17. encourages learners to solicit assistance from other learners?
- 37. individualizes the pace of learning from other learners?
- 38. helps learners explore their own abilities?
- 40. asks the learners how they would approach a learning task?
- 50. Participative Decision Making. The level of influence, ownership employees have in Decision-Making.
- 51. Attention through Vision So compelling it brings others to a place they have not been before.

## Factor #5 – Teacher Sensitivity toward Learners – Your Trainer

- 5. makes certain to understand the learner's point-of-view?
- 13. takes pains and time to get her/his point across to learners?
- 18. exercises patience in helping all learner's progress?
- 27. overcomes any frustration with learner apathy?
- 32. will use whatever time learners need to grasp various concepts?
- 36. thoroughly allows learners to ask all questions they need addressed?
- 41. resists in her/himself any irritation at learner inattentiveness in the learning setting

# Factor #6 – Learner-centered (Experienced-based) Learning Process – Your Trainer

- 2. uses buzz groups (learners placed in groups to discuss information from lectures)?
- 10. teaches through simulations of real-life settings?
- 21. conducts group discussions?

- 24. uses listening teams (learners grouped together to listen for a specific purpose) during lectures?
- 35. conducts role plays?
- 47. Risk Taking-Tolerance of ambiguity, uncertainty and learning from mistakes and errors
- 48. Interaction with the External Environment-Scope of relationships with the external environment

### Factor #7 – Teacher-centered Learning Process – Your Trainer

- 3. believes that your primary goal is to provide learners as much information as possible?
- 11. teaches exactly what and how you have planned?
- 20. tries to make her/his presentations clear enough to forestall all learner questions?
- 25. believes that your teaching skills are refined as they can be?
- 34. requires learners to follow the precise learning experience she/he provides them?
- 46. Experimentation-Trying new ideas, curious about how things work, change in work process
- 49. Dialogue-A process of collective inquiry/communication into certainties of everyday experience
- 52. Meaning through Communication Makes dreams & visions apparent so others align with them

These items listed below denotes the ranking for the seven factors, Trainer

Empathy with Learners (5) Trainer Trust of Learner (13), Trainer Planning & Delivery of

Instruction (5), Trainer Accommodating Learners Uniqueness (9), Trainer Sensitivity

toward Learners (7), Learner-Centered Learning Process (7), and Teacher-Centered

Learning Process (8).

Ranking: Trainer Trust of Learners (13), was the highest in ranking by the

importance of the LSST related to adult learners; Accommodating Learner Uniqueness

(9), was the second highest in ranking by the importance of the LSST related to adult

learners; Teacher-Centered Learning Process (8), was ranked the third highest by the

importance of the LSST related to adult learners; Trainer Sensitivity toward Learner (7),

and Learner-Centered (Experienced-based) Learning Process (7), were both ranked fourth

and fifth highest by the importance of the LSST related to adult learners; Planning and

Delivery of Instruction, (5), and Trainer Empathy with Learners (5), had the lowest ranking, due to the structure of the program, as all expectations were met by the Lean Six Sigma Trainer in training adult learners.

The explanation for the low rating in Planning and Delivery of Instruction were due to the preciseness of instructions prior to each training. The Planning and Delivery of Instruction by the LSST were strictly adhered to, did not deviate from, and consistencies were evident throughout each training to create a satisfactory learning environment for all adult learners.

The explanation for the low rating in Trainer Empathy with Adult Learners, as evident during trainings, the LSS methodology is practical, more (hands-on), and interactive approach to learning at her/his own pace.

It was noted quite strongly that Trainer's Trust of Learners was a very important factor. Second of importance was the Trainers' Accommodating Learner's Uniqueness to be given attention. This emphasized the importance of dealing with people as learners (with Beliefs, Feelings, and Behaviors) and they should not be slighted in the equation. This simply means that human beings (who are adult learners) in a training process, do not have their buttons pushed (mechanical) and the personal factors are not to be ignored.

# Appendix F-1

# ADAPTED INVENTORY OF COMPETENCIES OF AN EDUCATOR OF ADULTS

Listed below are 54 statements reflecting beliefs, feelings, and behaviors beginning or seasoned trainers of adults may or may not possess at a given moment. Please indicate how frequently each statement <u>typically applies to trainers</u> as they work with adult learners. Check the box that best describes the trainer.

#	How Frequently do the LSST?					
		A=1 Almost Never	B=2 Not Often	C=3 Sometimes	D=4 Usually	E=5 Almost Always
1.	Use a variety of teaching techniques?					
2.	Use buzz group (learners placed in groups to discuss)					
3.	Believes her/his primary goal is to provide learners as much information as possible.					$\checkmark$
4.	Feels fully prepared to teach?					$\checkmark$
5.	Have difficulty understanding learner's point-of-view?	$\checkmark$				
6.	Expect and accept learner frustration as they grapple with problems?	$\checkmark$				
7.	Purposefully communicate to learners that each is uniquely important?		$\checkmark$			
8.	Express confidence that learners will develop the skills they need?					$\checkmark$

#	How Frequently do the LSST?	'er				'ays
		A=1 Almost Never	B=2 Not Often	C=3 Sometimes	D=4 Usually	E=5 Almost Always
9.	Search for or create new teaching techniques? (P-4)		$\checkmark$			
10.	Teach through simulation of real-life? (LC-3)					
11.	Teach exactly what and how he/she have planned? (TC-3)					
12.	Notice and acknowledge to learners' positive changes in them?		$\checkmark$			
13.	Have difficulty getting her/his point across to learners?		$\checkmark$			
14.	Believe that learners vary in the way they acquire, process, and apply subject matter knowledge?					
15.	Really listens to what learners say?					
16.	Trusts learners to know what their own goals, dreams, and realities are like?					$\checkmark$
17.	Encourage learners to solicit assistance from other learners?					
18.	Feel impatient with learners' progress?					
19.	Balance her/his efforts between learner content acquisition and motivation?	$\checkmark$				
20.	Try to make your presentations clear enough to forestall all learner questions?					
21.	Conducts group discussions?					
22.	Establish instructional objectives?					

#	How Frequently do the LSST?	A=1 Almost Never	B=2 Not Often	C=3 Sometimes	D=4 Usually	E=5 Almost Always
23.	Use a variety of instructional media (internet, distance, interactive, videos, etc.)?					
24.	Use listening teams (learners grouped together to listen for a specific purpose) during lectures?					$\checkmark$
25.	Believe that her/his training skills are as refined as they can be?					
26.	Express appreciation to learners who actively participate in projects?					$\checkmark$
27.	Experience frustration with learner apathy?	$\checkmark$				
28.	Prize the learner's ability to learn what is needed?					
29.	Feel learners need to be aware of and communicate their thoughts and feelings?		$\checkmark$			
30.	Enables learners to evaluate their own progress in learning?					$\checkmark$
31.	Hear what learners indicate their learning needs are?				$\checkmark$	
32.	Have difficulty with the amount of time learners need to grasp various concepts?	$\checkmark$				
33.	Promote positive self-esteem in learners?			$\checkmark$		
34.	Require learners to follow the precise learning experiences she/he provide them?					$\checkmark$
35.	Conducts role plays?				$\checkmark$	
36.	Get bored with the many questions' learners ask?	$\checkmark$				

#	How Frequently do the LSST?	A=1 Almost Never	B=2 Not Often	C=3 Sometimes	D=4 Usually	E=5 Almost Always
37.	Individualize the pace of learning for each learner?	<				
38.	Help learners explore their own abilities?					
39.	Engage learners in clarifying their own aspirations?					
40.	Ask the learners how they would approach a learning task?					$\checkmark$
41.	Feel irritation at learner inattentiveness in the learning setting?					
42.	Integrates teaching techniques with subject matter content?					
43.	Develop supportive relationships with your learners?					
44.	Experience unconditional positive regard for her/his learners?					
45.	Respects the dignity and integrity of the learners?					
46.	Experimentation-Trying new ideas, curious about how things work, change in work process			$\checkmark$		
47.	Risk-taking-Tolerance of ambiguity, uncertainty and learning from mistakes and errors?	V				
48.	Interaction with the External Environment-Scope of relationships with the external environment?					$\checkmark$
49.	Dialogue-A process of collective inquiry/communication into certainties of everyday experience?					$\checkmark$
50.	Participative Decision Making. The level of influence, ownership employees have in Decision-Making					$\checkmark$

#	How Frequently do the LSST?					
		A=1 Almost Never	B=2 Not Often	C=3 Sometimes	D=4 Usually	E=5 Almost Always
51.	Attention through Vision- So compelling it brings others to a place					
	they have not been before					
52.	Meaning through Communication – Makes dreams & visions					
	apparent so others align with them					
53.	Trust through Positioning – Reliable, Consistent, Congruent,					
	Constant with talk and walk matching					
54.	Deployment of Self through – Knowing One's skills and displaying					
	them effectively through:					
	a) Positive Self-Regard – Knowing themselves, their strengths and					
	nurturing them; and,					
	b) The Wallenda Factor – Capacity for concentration on the					
	intention, the task, the decision					

# **Scoring Process**

A = 1, B = 2, C = 3, D = 4, E = 5

Almost	Not Often	Sometimes	Usually	Almost Always
Never	(6)	(5)	(8)	(26)
(9)				

For all questions: (Appendix F-1) assign the following points for secondary data:

- 1 =Almost Never
- 2 = Not Often
- 3 =Sometimes
- 4 = Usually
- 5 = Almost Always

These items listed below denotes the ranking for the LSS MIPI frequency with five choices:

Almost Never (9), Not Often (6), Sometimes (5), Usually (8), and Almost Always (26).

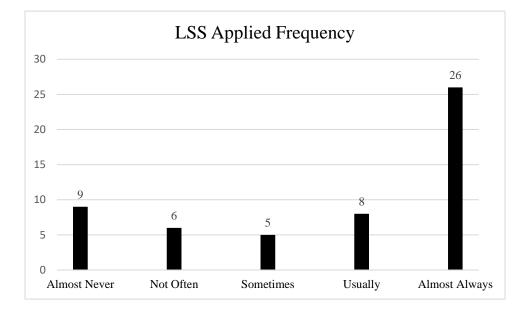


Figure F2. LSS Applied Frequency

The scoring results of Appendix F-1 represented added data that supported the level of satisfaction and also related to the Hypothesis. The highest scores translated the importance observed by the LSS trainer as h/she related to adult learners during training. Ranking: Almost Always (26), was the highest in ranking by the importance of the LSST related to adult learners; Almost Never (9), was the second highest in ranking by the importance of the LSST related to adult learners; Usually (8), was ranked the third highest by the importance of the LSST related to adult learners; Not Often (6), was ranked the fourth highest by the importance of the LSST related to adult learners; and, Sometimes (5), had the lowest ranking by the importance of the LSST related to adult learners.

Items constituting the seven factors with all 54 items of the Appendix B Items included in the Modified Instructional Perspectives Inventory (Appendix F-1)

Seven Factors under IPI	IPI Item
1. Teacher empathy with Learners	4, 12, 19, 26, 33
2. Trainer trust of Learner	7, 8, 16, 28, 29, 30, 31, 39, 43, 44, 45, 53, 54
3. Planning and delivery of instructions	1, 9, 22, 23, 42
4. Accommodating learner uniqueness	6, 14, 15, 17, 37, 38, 40, 50, 51
5. Teacher sensitivity toward Learners	5, 13, 18, 27, 32, 36, 41
6. Learner-centered learning process	2, 10, 21, 24, 35, 47, 48
7. Teacher-centered learning process	3, 11, 20, 25, 34, 46, 49, 52

*NOTE*\*: #26 in the above chart equals = almost always – Explanation with note down below. <u>NOTE\*</u> Ranking Above: Almost Always (26), was the highest in ranking by the importance of the LSST related to facilitating the learning of adult learners (1, 3, 4, 8, 11, 14, 15, 16, 21, 22, 23, 24, 25, 26, 28, 30, 34, 40, 42, 45, 48, 49, 50, 51, 52, 53)

Note: These numbers corresponds with the numbers of the statements in Appendix F-1.

The scoring results of Appendix F-1 represented added data that supported the

level of satisfaction and also related to the Hypothesis. The highest scores translated the

importance observed by the LSS trainer as h/she related to adult learners during training.

Total listings of MIPI items added to the second page down below.

Almost Never (9), was the second highest in ranking by the importance of the LSST

related to adult learners; Usually (8), was ranked the third highest by the importance of

the LSST related to adult learners; Not Often (6), was ranked the fourth highest by the importance of the LSST related to adult learners; and, Sometimes (5), had the lowest ranking by the importance of the LSST related to adult learners.

# Appendix G

# Merging the Modified Instructional

# Perspectives Inventory with Leader Strategies for Taking Charge for Lean Six Sigma Trainers

Listed below are 54 statements reflecting the level of satisfaction of adult learners being educated by seasoned trainers? Please indicate how frequently each statement <u>typically applies to trainers</u> as they work with adult learners. Check the box that best describes the trainer.

# Soft Skills

	Vision	re /	,		/	Testing
Factor #1 Trainer Em	pathy	with Lear	rners – Y	our Trai	ner	
4. feels fully prepared to teach?						
12. notices and acknowledges to learner's positive changes in them?						
19. balances efforts between learner content acquisition and motivation?						
26. expresses appreciation to learners who actively participate?						
33. promotes positive self-esteem in learners?		$\checkmark$		$\checkmark$		

	Vision	Leadership	Empowerment	Communication	Influence	Testing
Factor #2 Trainer	Trust o	of Learne	rs – You	r Trainer	•	
7. purposefully communicates to learners that each is uniquely important?						
8. expresses confidence that learners will develop the skills they need?				$\checkmark$		$\checkmark$
16. trusts learners to know what their own goals, dreams, and realities are like?		$\checkmark$				
28. prizes the learner's ability to learn what is needed?				$\checkmark$		$\checkmark$
29. feels learners need to be aware of and communicate their thoughts and feelings?				$\checkmark$		
30. enables learners to evaluate their own progress in learning?						$\checkmark$
31. hears what learners indicate their learning needs are?						
39. engages learners in clarifying their own aspirations						
43. develops supportive relationships with your learners?		$\checkmark$				

## ANDRAGOGY AND LEAN SIX SIGMA

44. experiences unconditional positive regard for her/his learners?			
45. respects the dignity and integrity of the learners?	$\checkmark$		
53. Trust through Positioning – Reliable, Consistent, Congruent, Constant with talk and walk matching		$\checkmark$	

	Vision	Leadership	Empowerment	Communication	Influence	Testing
54. Deployment of Self through –			$\checkmark$			
Knowing One's skills and displaying						
them effectively through: a) Positive Self-Regard – Knowing						
themselves, their strengths and						
nurturing them; and, b) The						
Wallenda Factor – Capacity for						
concentration on the intention, the						
task, the decision						
Factor #3 Planning and	Delive	ery of Inst	truction-	Your Tra	ainer	
1. uses a variety of teaching						
techniques?				•		
9. searches for or create new						
teaching techniques? 22. establishes instructional	1			1		
objectives?	N			N		
23. uses a variety of instructional						
media? (internet, distance, interactive				•		
video, videos, etc.)?				,		
42. integrates teaching techniques with subject matter content?						

Factor #4 Accommodatin	ng Lea	rner Unio	queness –	- Your Ti	rainer	
6. expects and accepts learner						
frustration as they grapple with		•		•		
problems?						
14. believes that learners vary in the						
way they acquire, process, and apply		•		•		
subject matter knowledge?						
15. really listen to what learners have						
to say?		•		•		
17. encourages learners to solicit						
assistance from other learners?			•	•	•	
37. Individualizes the pace of						
learning for each learner		•		•		
38. Helps learners explore their own						
abilities		•				

	Vision	Leadership	Empowerment	Communication	Influence	Testing
40. Asks the learners how they would						
<ul><li>approach a learning task</li><li>50. Participative Decision Making.</li><li>The level of influence, ownership</li><li>employees have in Decision-Making.</li></ul>						
51. Attention through Vision- So compelling it brings others to a place they have not been before		$\checkmark$				
Factor #5 Trainer Insen	sitivity	toward L	earners-	Your Tr	ainer	
5. has difficulty understanding learner's point-of-view						
13. has difficulty getting her/his point across to learners						
18. feels impatient with learner's progress						
27. experiences frustration with learner apathy						
32. have difficulty with the amount of time learners need to grasp various concepts						
36. gets bored with the many questions learners ask						

## ANDRAGOGY AND LEAN SIX SIGMA

41. feels irritation at learner inattentiveness in the learning setting?						
Factor #5 Trainer Sens	itivity t	toward Le	earners-`	Your Tra	ainer	
5. makes certain to understand the learner's point-of-view						
13. take pains and time to get her/his point across to learners						
18. exercises patience in helping all learner's progress						$\checkmark$
27. overcomes any frustration with learner apathy						
32. will use whatever time learners need to grasp various concepts				$\checkmark$	$\checkmark$	
36. thoroughly allows learners to ask all questions they need addressed		$\checkmark$		$\checkmark$	$\checkmark$	

	Vision	Leadership	Empowerment	Communication	Influence	Testing
41. resists in her/himself any irritation						
at learner inattentiveness in the						
learning setting Factor #6 Learner-centered [Expe	rionco	d_hased]	I earning	Process	- Vour Tra	inor
2. uses buzz groups (learners placed in groups to discuss) information from lectures.		V	Learning	V		
10. teaches through simulations of real-life						
21. conducts group discussions						
24. uses listening teams (learners grouped together to listen for a specific purpose) during lectures		$\checkmark$		$\checkmark$		
35. Conducts role plays			$\checkmark$			$\checkmark$
47. Risk Taking-Tolerance of ambiguity, uncertainty and learning from mistakes and errors		V		V		$\checkmark$
48. Interaction with the External Environment-Scope of relationships with the external environment						

Factor #7 Teacher-cent	ered L	earning l	Process-	Your Tra	ainer	
3. believes that her/his primary goal						
is to provide learners as much						
information as possible?						
11. teaches exactly what and how						
she/he has planned		,		•		
20. tries to make her/his presentations						
clear enough to forestall all learner						
questions						
25. believes that her/his teaching						
skills are as refined as they can be				•		
34. requires learners to follow the						
precise learning experiences she/he		,		•	,	
provides them						

	Vision	Leadership	Empowerment	Communication	Influence	Testing
46. Experimentation-Trying new ideas, curious about how things work, change in work process						
<ul><li>49. Dialogue-A process of collective inquiry/communication into certainties of everyday experience</li></ul>						
<ul> <li>52. Meaning through Communication</li> <li>– Makes dreams &amp; visions apparent so others align with them</li> </ul>				V		

# **Scoring Process**

(V)	(L)	(E)	(C)	(I)	(T)
Vision	Leadership	Empowerment	Communication	Influence	Testing
(14)	(36)	(9)	(43)	(9)	(14)

Appendix G provided emerging insights about the level of satisfaction from Research Question 2 and the hypothesis. The scoring results of Appendix G represented emerging insights about the level of satisfaction and added data that supported the Hypothesis. The highest scores translated the importance observed by the LSS trainer as h/she related to adult learners during training.

Ranking: Communication (43), was the highest in ranking by the importance of the LSST related to adult learners; Leadership (36), was the second highest in ranking by the importance of the LSST related to adult learner; Testing (14) and Vision (14), were both ranked third and fourth highest by the importance of the LSST related to adult learners; Empowerment (9), was ranked the fifth highest by the importance of the LSST related to adult learners; Influence (9), was ranked the sixth highest by the importance of the LSST related to related to adult learners; Influence (9), was ranked the sixth highest by the importance of the LSST related to related to adult learners; Influence (9), was ranked the sixth highest by the importance of the LSST related to adult learners; Influence (9), was ranked the sixth highest by the importance of the LSST related to adult learners; Influence (9), was ranked the sixth highest by the importance of the LSST related to adult learners; Influence (9), was ranked the sixth highest by the importance of the LSST related to adult learners; Influence (9), was ranked the sixth highest by the importance of the LSST related to adult learners; Influence (9), was ranked the sixth highest by the importance of the LSST related to adult learners; Influence (9), was ranked the sixth highest by the importance of the LSST related to adult learners; Influence (9), was ranked the sixth highest by the importance of the LSST related to adult learners; Influence (9), was ranked the sixth highest by the importance of the LSST related to adult learners; Influence (9), was ranked the sixth highest by the importance of the LSST related to adult learners; Influence (9), was ranked the sixth highest by the importance of the LSST related to adult learners; Influence (9), was ranked the sixth highest by the importance of the LSST related to adult learners; Influence (9), was ranked the sixth highest by the importance of the LSST related to adult learners; Influence (9), was ranked the sixth highest by the import

The explanation for the low rating in Testing (14), were due to the precise structure of the training program. The Lean Six Sigma training was adhered to having the correct tools to present, therefore, the employee/participant did not have to present testing during this phase of the training, therefore, Testing was not evident, nor needed at this juncture in the training program.

The explanation for the low rating in Vision (14), was at this phase in the training program, the employees/participants were provided certain materials that manifested themselves as Lean Six Sigma tools that taught them how to streamline current processes of any project, identify cost avoidance, and to eliminate waste. The LSS methodology is practical, more (hands-on), and interactive approach to learning for adult learners.

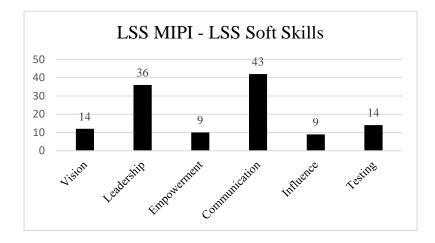
The explanation for the low rating in Empowerment (9), was due to the structure of the training program. Throughout the 5-day LSS training, as evident in the last day of the training, did the employees/participants begin to see the 'big picture' and the 'light bulbs' were on. This was precisely how the LSS trainer structured the LSS training, to show the impact of Empowerment in using the LSS tools, prior to the end of the training.

The explanation for the low rating in Influence (9), was due to the structure of the training program. Throughout the 5-day LSS training, the application of the LSS tools were structured, again, only prior to the last day of training, was Influence evident and necessary to for the employee/participant to create 'buy-in' from upper management to support the training and the LSS methodology.

It was noted quite strongly that Communication (43) was a very important factor. Second of importance was the Trainers' Accommodating Learner's Uniqueness to be given attention. This emphasized the importance of dealing with people as learners with (Beliefs, Feelings, and Behaviors) and they should not be slighted in the equation. This simply meant that human beings (who are adult learners) in a training process, do not have their buttons pushed (a mechanical thing) and the personal factors are not to be ignored.

But nevertheless, the strong communication and the leadership contributed to the employee/participant being satisfied. The strength of the Communication (43) rating was due to the length of the training (5-day) and the many tools that were conveyed by the LSST. Communication was a large part of the training activity. The strength of leadership (36) rating was due to the expertise and the knowledge the LSST as the SME brought to the training. The LSS skills are very important to an LSS training program.

Even though the other soft skills were just as important and needed to effectively train adult learners, communication and leadership were most prominent for the noted reasons above.



### Merging the Modified Instructional

#### Perspectives Inventory with Leader Strategies for Taking Charge for LSST <u>Vision = V, Leadership = L, Empowerment = E, Communication = C, Influence = I, and Testing = T</u> <u>Factors in the Modified Instructional Perspectives Inventory [MIPI]</u>

1	
1.	Teacher Empathy toward Learners $-Total = 10$
	• V - 0
	• L - 5
	• E - 1
	• C - 3
	• I – 1
2	• T - 0
2.	Teacher Trust of Learners – Total = $29$
	• V - 2
	• L - 5
	• E - 3
	• C - 10
	• I – 1
2	• T - 8
3.	Planning and Delivery of Instruction $-$ Total $= 10$
	• V - 5
	• L - 0
	• E - 0
	• C - 5
	• I – 0
	• T - 0
4.	Accommodating Learner Uniqueness – $Total = 20$
	• V - 1
	• L - 6
	• E - 2
	• C - 8
	• I – 2
-	• T - 1
5.	Teacher Sensitivity to Learners $-$ Total $= 17$
	• V - 1
	• L - 7
	• E - 0
	• C - 4
	• I – 3
<i>.</i>	• T - 2
6.	Learner-Centered Learning Processes – Total = 18
	• V - 1
	• L - 6
	• E - 2
	• C - 7
	• I – 0
	• T - 2
v11. Te	acher-Centered Learning Processes – 21
	• V - 4
	• L - 7
	• E - 1
	• C - 6
	• I – 2
	• T - 1 STRENGTHENING ELEMENTS CRAND TOTAL - 125
	STRENGTHENING ELEMENTS GRAND TOTAL = 125

## Items constituting the seven factors of the

Seven Factors under MIPI	MIPI Item
1. Teacher empathy with Learners	4, 12, 19, 26, 33
2. Trainer trust of Learner	7, 8, 16, 28, 29, 30, 31, 39, 43, 44, 45, 53, 54
3. Planning and delivery of instructions	1, 9, 22, 23, 42
4. Accommodating learner uniqueness	6, 14, 15, 17, 37, 38, 40, 50, 51
5. Teacher sensitivity toward Learners	5, 13, 18, 27, 32, 36, 41
6. Learner-centered learning process	2, 10, 21, 24, 35, 47, 48
7. Teacher-centered learning process	3, 11, 20, 25, 34, 46, 49, 52

## Modified Instructional Perspectives Inventory (Appendix G).

#### LEAN SIX SIGMA TRAINER'S

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Empathy	Trust	Plan &	Accommodating	Sensitivity	Learner-	Teacher-
		Delivery			Centered	Centered
4	7	1	6	5	2	3
12	8	9	14	13	10	11
19	16	22	15	18	21	20
26	28	23	17	27	24	25
33	29	42	37	32	35	34
	30		38	36	47	46
	31		40	41	48	49
	39		50			52
	43		51			
	44					
	45					
	53					
	54					
Total	Total	Total	Total	Total	Total	Total
5	13	5	9	7	7	8

#### PERSPECTIVE INVENTORY FACTORS

#### Appendix H

#### Doctoral Dissertation Completed Using Henschke's Modified Instructional Perspectives Inventory (MIPI) (26) These items were used as part of addressing Research Question 1. MIPI validated three [3] times for reliability. TRUST - strongest factor throughout. NAME of UNIVERSITY and Acronym

Kansas State University (KSU) [2]; University of Missouri-St. Louis (UMSL) [13]; Lindenwood University (LU) [9]; St. Louis University (SLU [1]; Virginia Polytechnic State University-National Capital Region (VPSU-NCR) [1]

1995	Thomas, E.	An identification of the instructional perspectives of parent educators. [KSU]
1997	Seward, S.	An identification of the instructional perspectives of Kansas parents as teacher educators [KSU]
1997	Dawson, S.	Instructional perspectives of nurse educators [UMSL]
2003	Drinkard, G.	Instructional perspectives of nurse educators in distance education [UMSL]
2005	Stanton, C (Modified instrument and first validation study)	A construct validity assessment of the Instructional Perspectives Inventory (MIPI) [UMSL]
2006	Stricker, A.	Learning leadership: An investigation of principals' attitudes toward teachers in creating the conditions conducive for learning in school-based staff development [UMSL]
2007	Reinsch, E.	The relationship among lifelong learning, emotional intelligence and life satisfaction for adults 55 years of age or older [UMSL]
2007	McManus, L.	The instructional perspectives of community college mathematics faculty [UMSL]
2007	Rowbotham, M.	Teacher perspectives and the psychosocial climate of the classroom in a traditional BSN program [UMSL]
2009	Ryan, L.	Adult learning satisfaction and instructional perspective in the foreign language classroom [UMSL]
2010	Manjounes, C.	An adult accelerated degree program: Student and instructor perspectives and factors that affect retention [LU]

## ANDRAGOGY AND LEAN SIX SIGMA

2011	Vatcharasirisook, V (Second validation study of instrument)	Organizational learning and employee retention: A focused study examining the role of relationships between supervisors and subordinates [UMSL]
2011	Jones-Clinton, T.	Principals as facilitators of professional development with teachers as adult learners [UMSL]
2011	Moehl, P (Third validation study of instrument)	Exploring the relationship between Myers-Briggs Type and Instructional Perspectives among college faculty across academic disciplines [UMSL]
2012	Risley, L.	Exploring Congruency between John A. Henschke's Practice and Scholarship [LU]
2013	Lubin, M.	Coaching the Adult Learner: A Framework for Engaging the Principles and Processes of Andragogy for Best Practices in Coaching [VPSU-NCR]
2014	Gillespie, L.	Trust in Leadership: Investigation of Andragogical Learning and Implications for Student Placement Outcomes [LU]
2014	Lu, Y.	An Exploration of Merit Pay, Teacher and Student Satisfaction, and Teacher Performance Evaluation from an Instructional Perspective [UMSL]
2014	Queen, V.	Practical Andragogy: Considering Instructional Perspectives of Hospitality Educators [SLU]
2015	Lundry, S.	Transformational Learning: An Investigation of the Emotional Maturation Advancement in Learners Aged 50 and Older [UMSL]
2016	Hantak, K.	An Initial Examination of Relationships Between Early Intervention Services and Andragogical Factors. [LU]
2017	Najjar, H.	A Case Study: An Andragogical Exploration of a Collegiate Swimming and Diving Coach's Principles and Practices at Lindenwood University. [LU]
2017	Klepper, E.	Andragogy and Workplace Relationships: A Mixed Methods Study Exploring the Employees Perception of their Relationships with their Supervisors. [LU]
2017	Morgan, R.	Inclusive Education for Preschool Learners with Autism: A Program Evaluation. [LU]
2018	Kheang, S.	Guidelines for USA Teacher Leadership in Adult Classrooms to Enhance International Undergraduate Satisfaction. [LU].
2018	Grant, P.	A Mixed-Methods Study on Faculty Caring and Trust as Perceived by Undergraduate Students in Classrooms at a Mid-Western University [LU].

#### Appendix I

#### MIPI – Adapted for Employers Assessed Themselves (MIPI-E)

How Frequently Do I as a Teacher/Facilitator	LOW	HIGH	
--	-----	------	--

7. purposefully communicate to you that you are					
uniquely important?	А	В	С	D	E
8. express confidence that you will develop the					
skills you need?	А	В	С	D	E
16. appear to trust you to know what their					
own goals, dreams, and realities are like?	А	В	С	D	Е
28. appear to prize your ability to learn					
what is needed for a work project?	А	В	С	D	Е
29. feel you need to be aware of and communicate					
your thoughts and feelings?	А	В	С	D	Е
30. enable you to evaluate your own progress					
in work and learning?	А	В	С	D	E
31. hear what you indicate your work and learning					
needs are?	А	В	С	D	Е
39. engage you in clarifying your own aspirations?	А	В	С	D	Е
43. develop a supportive relationship with you?	А	В	С	D	Е
44. expresses unconditional positive regard for you?	А	В	С	D	Е
45. respects your dignity and integrity?	А	В	С	D	Е

\*Note: All of the 11 elements of trust are positioned to interrelate with two items above.

#### - TRUST THROUGH POSITIONING – As the Facilitator

\*Is reliable, constant, focused and all of a piece can be counted on and will not shift positions

\*It is clear where he/she is coming from and what he/she stands for, even though others may disagree with it

#### MIPI – Adapted for Employees to Assess their Employers (MIPI-E)

How Frequently Do I as a Teacher/Facilitator		LOW		HIGH	
7. purposefully communicate to you that you are					
uniquely important?	A	В	С	D	E
8. express confidence that you will develop the					
skills you need?	А	В	С	D	E
16. appear to trust you to know what their					
own goals, dreams, and realities are like?	А	В	С	D	E
28. appear to prize your ability to learn					
what is needed for a work project?	А	В	С	D	Е
29. feel you need to be aware of and communicate					
your thoughts and feelings?	А	В	С	D	Е
30. enable you to evaluate your own progress					
in work and learning?	А	В	С	D	Е
31. hear what you indicate your work and learning					
needs are?	А	В	С	D	E
39. engage you in clarifying your own aspirations?	А	В	С	D	Е
43. develop a supportive relationship with you?	А	В	С	D	Е
44. expresses unconditional positive regard for you?	А	В	С	D	Е
45. respects your dignity and integrity?	А	В	С	D	E

\*Note: All of the 11 elements of trust are positioned to interrelate with two items above.

#### - TRUST THROUGH POSITIONING – As the Facilitator

\*Is reliable, constant, focused and all of a piece can be counted on and will not shift positions

\*It is clear where he/she is coming from and what he/she stands for, even though others may disagree with it.

#### Appendix J

#### Reciprocity of Empathy, Trust, Insensitivity, and Sensitivity

#### Factor #1 – Employer Empathy with Employees/Participants:

- 4. feeling fully prepared to present to employees/participants information on a working project;
- 12. noticing and acknowledging to employees/participants positive changes in them;
- 19. balancing her/his efforts between employees/participants content acquisition and motivation;
- 26. expressing appreciation to employees/participants who actively participate;
- 33. promoting positive self-esteem in employees/participants.

#### Factor #2 – Employer Trust of Employees/Participants:

- 7. purposefully communicating to employees/participants that each is uniquely important;
- 8. expressing confidence that employees/participants will develop the skills they need;
- 16. trusting employees/participants to know what their own goals, dreams, and realities are like;
- 28. prizing the employees'/participants' ability to learn what is needed;
- 29. feeling employees/participants need to be aware of and communicate their thoughts and feelings;
- 30. enabling employees/participants to evaluate their own progress in learning;
- 31. hearing what employees/participants indicate their own needs are;
- 39. engaging employees/participants explore their own abilities;
- 43. developing supportive relationships with her/his employees/participants;
- 44. experiencing unconditional positive regard for her/his employees/participants;
- 45. respecting the dignity and integrity of the employees/participants.

#### Factor #5 – Employer Insensitivity toward Employees/Participants:

- 5. has difficulty understanding learner's point of view;
- 13. has difficulty getting her/his point across to learners;
- 18. feels impatient with learner's progress;
- 27. experiences frustration with learner apathy;
- 32. have difficulty with the amount of time learners need to grasp various concepts;
- 36. gets bored with the many questions learners ask;
- 41. feels irritation at learner inattentiveness in the learning setting?

#### Factor #5 – Employer Sensitivity toward Employees/Participants:

- 5. making certain to understand the employees'/participants' points of view;
- 13. taking pains and times to get her/his point across to employees/participants;
- 18. exercising patients with employees'/participants' progress;
- 27. overcoming any frustrations with employees'/participants' apathy;
- 32. will be using whatever time employees/participants need to grasp various concepts;
- 36. thoroughly allowing employees/participants to ask all questions they need addressed;
- 41. resisting in her/himself any irritation at employees'/participants' inattentiveness in the working/learning setting.

# Appendix K

## MERGING OF THE 11 ELEMENTS OF TRUST WITH THE FIVE

## ORGANIZATIONAL LEARNING CAPABILITIES [OLC]

As each trust element is linked with the OLC, the trust element is strengthened, in turn,

TRUST ELEMENTS	ORGANIZATIONAL LEARNING CAPABILITIES – OLC
1. Purposely communicates to learners that each is uniquely important	<ul> <li>4. Dialogue – A sustained collective inquiry into: the processes, the assumptions and certainties that make up every day experience. A process to create an understanding of communication. Therefore, dialogue is a crucial factor for organizational learning.</li> </ul>
2. Expresses confidence that learners will develop the skills they need	1. Experimentation - The degree to which new ideas and suggestions are attended to and dealt with sympathetically. Involves trying out new ideas. Being curious about things work. Carrying out changes in work process.
3. Trusts learners to know what their own goals, dreams, and realities are like	5. Participative Decision Making - The level of influence employees has in the decision – making process. By supporting participative decision- making organizations benefit by increasing: Employment involvement, Job satisfaction, Organizational commitment, and Ownership of decision outcomes.

## MERGING OF THE 11 ELEMENTS OF TRUST WITH THE FIVE

## ORGANIZATIONAL LEARNING CAPABILITIES [OLC]

As each trust element is linked with the OLC, the trust element is strengthened, in turn,

TRUST ELEMENTS	ORGANIZATIONAL LEARNING
	CAPABILITIES – OLC
4. Prizes the learner's ability to learn what is needed	1. Experimentation - The degree to which new ideas and suggestions are attended to and dealt with sympathetically. Involves trying out new ideas. Being curious about things work. Carrying out changes in work process.
	<ol> <li>Risk-Taking – Tolerance of ambiguity, uncertainty and errors. Risk-taking is an important trait for organizations to develop. Effective organizations accept and learn from failure and mistakes.</li> </ol>
5. Feels learners need to be aware of and communicate their thoughts and feelings	<ol> <li>Dialogue – A sustained collective inquiry into: the processes, the assumptions and certainties that make up every day experience. A process to create an understanding of communication. Therefore, dialogue is a crucial factor for organizational learning.</li> </ol>

## MERGING OF THE 11 ELEMENTS OF TRUST WITH THE FIVE

## ORGANIZATIONAL LEARNING CAPABILITIES [OLC]

As each trust element is linked with the OLC, the trust element is strengthened,

TRUST ELEMENTS	ORGANIZATIONAL LEARNING CAPABILITIES – OLC
6. Enables learners to evaluate their own progress in learning	<ul> <li>5. Participative Decision Making - The level of influence employees has in the decision – making process. By supporting participative decision-making organizations benefit by increasing: Employment involvement, Job satisfaction, Organizational commitment, and Ownership of decision outcomes.</li> </ul>

## MERGING OF THE 11 ELEMENTS OF TRUST WITH THE FIVE

## ORGANIZATIONAL LEARNING CAPABILITIES [OLC]

As each trust element is linked with the OLC, the trust element is strengthened,

TRUST ELEMENTS	ORGANIZATIONAL LEARNING
	CAPABILITIES – OLC
7. Hear what learners indicate their	4. Dialogue – A sustained collective
learning needs a	inquiry into: the processes, the
	assumptions and certainties that
	make up every day experience. A
	process to create an
	understanding of communication.
	Therefore, dialogue is a crucial
	factor for organizational learning.
	5. Participative Decision Making -
	The level of influence employees
	has in the decision – making
	process. By supporting
	participative decision-making
	organizations benefit by
	increasing: Employment
	involvement, Job satisfaction,
	Organizational commitment, and
	Ownership of decision outcomes.

## MERGING OF THE 11 ELEMENTS OF TRUST WITH THE FIVE

## ORGANIZATIONAL LEARNING CAPABILITIES [OLC]

As each trust element is linked with the OLC, the trust element is strengthened,

TRUST ELEMENTS	ORGANIZATIONAL LEARNING CAPABILITIES – OLC
<ol> <li>Engages learners in clarifying their own aspirations</li> </ol>	<ul> <li>4. Dialogue – A sustained collective inquiry into: the processes, the assumptions and certainties that make up every day experience. A process to create an understanding of communication. Therefore, dialogue is a crucial factor for organizational learning.</li> </ul>

## MERGING OF THE 11 ELEMENTS OF TRUST WITH THE FIVE

## ORGANIZATIONAL LEARNING CAPABILITIES [OLC]

As each trust element is linked with the OLC, the trust element is strengthened,

TRUST ELEMENTS	ORGANIZATIONAL LEARNING
	CAPABILITIES – OLC
9. Develops supportive relationships with her/his learners	<ol> <li>Risk-Taking – Tolerance of ambiguity, uncertainty and errors. Risk-taking is an important trait for organizations to develop. Effective organizations accept and learn from failure and mistakes.</li> </ol>
	3. Interaction with the External Environment – The scope of relationships with the external environment. Organizations have to keep up with the external environment; thus, Interaction with the external environment plays a major role in organizational learning and development.
	<ol> <li>Dialogue – A sustained collective inquiry into: the processes, the assumptions and certainties that make up every day experience. A process to create an understanding of communication. Therefore, dialogue is a crucial factor for organizational learning.</li> </ol>

## MERGING OF THE 11 ELEMENTS OF TRUST WITH THE FIVE

## ORGANIZATIONAL LEARNING CAPABILITIES [OLC]

As each trust element is linked with the OLC, the trust element is strengthened,

TRUST ELEMENTS	ORGANIZATIONAL LEARNING
	CAPABILITIES – OLC
10. Experiences unconditional positive regard for her/his learners	<ol> <li>Risk-Taking – Tolerance of ambiguity, uncertainty and errors. Risk-taking is an important trait for organizations to develop. Effective organizations accept and learn from failure and mistakes.</li> </ol>
	<ol> <li>Dialogue – A sustained collective inquiry into: the processes, the assumptions and certainties that make up every day experience. A process to create an understanding of communication. Therefore, dialogue is a crucial factor for organizational learning.</li> </ol>
	5. Participative Decision Making - The level of influence employees has in the decision – making process. By supporting participative decision-making organizations benefit by increasing: Employment involvement, Job satisfaction, Organizational commitment, and Ownership of decision outcomes

## MERGING OF THE 11 ELEMENTS OF TRUST WITH THE FIVE

## ORGANIZATIONAL LEARNING CAPABILITIES [OLC]

As each trust element is linked with the OLC, the trust element is strengthened,

TRUST ELEMENTS	ORGANIZATIONAL LEARNING CAPABILITIES – OLC
11. Respects the dignity and integrity of the learners	<ul> <li>4. Dialogue – A sustained collective inquiry into: the processes, the assumptions and certainties that make up every day experience. A process to create an understanding of communication. Therefore, dialogue is a crucial factor for organizational learning.</li> </ul>
	5. Participative Decision Making - The level of influence employees has in the decision – making process. By supporting participative decision-making organizations benefit by increasing: Employment involvement, Job satisfaction, Organizational commitment, and Ownership of decision outcomes

# Appendix L

## MERGING OF THE Five ORGANIZATIONAL LEARNING CAPABILTIES

## WITH 11 ELEMENTS OF TRUST

ORGANIZATIONAL LEARNING CAPABILITIES – OLC	TRUST ELEMENTS
<ul> <li>4. Dialogue – A sustained collective inquiry into: the processes, the assumptions and certainties that make up every day experience. A process to create an understanding of communication. Therefore, dialogue is a crucial factor for organizational learning.</li> </ul>	<ol> <li>Purposely communicates to learners that each is uniquely important</li> <li>Feels learners need to be aware of and communicate their thoughts and feelings</li> <li>Hear what learners indicate their learning needs are</li> <li>Engages learners in clarifying their own aspirations</li> <li>Develops supportive relationships with her/his learners</li> <li>Experiences unconditional positive regard for her/his learners</li> <li>Respects the dignity and integrity of the learners</li> </ol>
5. Participative Decision Making - The level of influence employees has in the decision – making process. By supporting participative decision- making organizations benefit by increasing: Employment involvement, Job satisfaction, Organizational commitment, and Ownership of decision outcomes.	<ol> <li>Trusts learners to know what their own goals, dreams, and realities are like</li> <li>Enables learners to evaluate their own progress in learning</li> <li>Hear what learners indicate their learning needs are</li> <li>Experiences unconditional positive regard for her/his learners</li> <li>Respects the dignity and integrity of the learners</li> </ol>

## MERGING OF THE Five ORGANIZATIONAL LEARNING CAPABILTIES

ORGANIZATIONAL LEARNING	TRUST ELEMENTS
CAPABILITIES – OLC	
2. Risk-Taking – Tolerance of ambiguity, uncertainty and errors. Risk-taking is an important trait for organizations to develop. Effective organizations accept and learn from failure and mistakes.	<ul> <li>4. Prizes the learner's ability to learn what is needed</li> <li>9. Develops supportive relationships with her/his learners</li> <li>10. Experiences unconditional positive regard for her/his learners</li> </ul>
1. Experimentation - The degree to which new ideas and suggestions are attended to and dealt with sympathetically. Involves trying out new ideas. Being curious about things work. Carrying out changes in work process.	<ol> <li>Expresses confidence that learners will develop the skills they need</li> <li>Prizes the learner's ability to learn what is needed</li> </ol>
3. Interaction with the External Environment – The scope of relationships with the external environment. Organizations have to keep up with the external environment; thus, Interaction with the external environment plays a major role in organizational learning and development.	9. Develops supportive relationships with her/his learners

## WITH 11 ELEMENTS OF TRUST

#### VITAE

#### Teresa A. Anderson

12178 Red Lion Dr. Florissant, MO 63033 314-741-8635 (Home)/314-398-4343 (Cell) teanderson121@charter.net

#### **CAREER SUMMARY**

Experienced Product Specialist with a demonstrated history of working in the agricultural industry. Analytical Skills, Finance, O365 Microsoft Suite, OneDrive, Lean Six Sigma Process Improvement, and Visio. Strong focus on IT applications, deployment, customer service.

#### **EDUCATION**

Lindenwood University

• Ed. D. Instructional Leadership in Higher Education, in progress

Lindenwood University

• MBA - Master Degree in Business Administration and four years related work experience

Lindenwood University

• BA - Bachelor Degree in Business Administration and six years related work experience

#### **CAREER HISTORY**

#### Monsanto/Bayer

#### Product Specialist – Workforce Productivity Platform January 2016 – present

- Excellent communication skills with ability to engage, influence and inspire stakeholders to drive collaboration and alignment
- Product user adoption by using data sources by creating communications, product dashboard, knowledge-based documents, and 'How to' documentation
- Empower business partners/stakeholders use of applications
- Provide excellent customer care to support new product launches by utilizing customer-centric initiatives to meet the business needs.
- Processes, applications, systems and data to identify functional requirements for application modernization or (LCM) retirement
- Consult and coordinate using cross-functional relationships to clarify and refine requirements
- Manage timelines and have knowledge of the Enterprise Production Life Cycle management
- Follow multiple product roadmaps to organize timely feature releases and minimize release delays

- Work closely with Business Product Owners/Managers and Architecture/Engineer to understand product vision, and breaking it down into an actionable backlog of epics and user stories for the development/(LCM) retirement team
- Working in an Agile development environment
- Collect, maintain and disseminate information to stakeholders on an ongoing basis
- Write thorough requirements for each product and feature build
- Collaborate with development and engineering teams to leverage subject matter expertise to deliver customer-centric solutions
- Drive effective teamwork, communication, collaboration and commitment across multiple departments
- Monitor and update several Operational Readiness Trackers (ORT) for Windows 10 and O365 Mobility to prepare for the deployment/launch of all applications in a timely manner.
- Business analysis of stakeholders' impact of use of Windows 10 and O365 Mobility and offering the best customer care during these initiatives and deployments/launches.
- Prepare Launch Plans for Microsoft O365 Products
- Prepare Communication Plans for O365 Product
- Able to negotiate with stakeholders and partners to remove obstacles
- Training Plans for Microsoft O365 Products rollouts, by using Monsanto University, a tool used to create CBTs
- Ability to analyze and use data to make informed product decision as it relates the HEART metric using the tool Power BI
- Monitor and provide timely responses to all questions and feedback in the O365 Awareness inbox as priority.
- Communicate and collaborate with employees upgraded and migrated to O365, O2016, and the Cloud by offering the best customer care during deployments.
- Capture customer satisfaction and monitor and provide timely responses to questions and feedback as it impacts the O365 Yammer postings.
- Analyze and report metrics from the O365 Yammer postings and O365 Awareness inbox emails to be able to proactively measure success of each launch initiative.

#### **Coordinator – IT Launch & Adoption**

## Maintain training materials for the productivity and collaboration tools, such as O365 and OneDrive

- Coordinate distribution to drive adoption to the productivity workforce
- Support Launch Specialists with global product launches
- Coordinate the reporting of adoption metrics by using Spotfire Software
- Assist in documenting Lean Six Sigma Events to optimize and streamline current processes
- Manage and monitor the organizational cost center budget
- Manage and monitor O365 Yammer Group account in answering technical and O365 responses

#### Lean Six Sigma Documentation Specialist – BPI September 2010-2015

## May 2015 – 2016

#### ANDRAGOGY AND LEAN SIX SIGMA

- Document Lean Events that results over \$20M cost savings and cost avoidance
- Capture all documentation for Lean Events and Applied Lean/Six Sigma Process Improvement concepts; SIPOC, Project Charter, FMEA
- Simplify all processes of a Lean Event by using Lean/Six Sigma Methodologies
- Standardize all work during a 5-day Lean Event to achieve optimal success
- Involve in the assessment process to utilize the knowledge to generate efficiencies
- Post Lean Event Debrief Session
- Budget-Monitor Logistic and other services of Lean Events
- Present-Monitor Budgets of Lean Events
- Set meetings for Pre-Post Work Meetings with Stakeholders

#### **COMPUTER SKILLS**

Microsoft Office Suite 2016 (Word, Excel, PowerPoint, Visio, Access), Microsoft O365, Yammer, Delve, OneNote, OneDrive, Planner, Slack, Box, Focused Inbox, Microsoft Teams, Microsoft Planner, Delve, Sway, SAP, Concur (expense reporting, travel), Monsanto University Administrator, Business Process Management Project Management Tool (BPM PMT).

#### SKILLS

Organization, Analytical, Problem-solving, Communication, Monitor Processes, Simplification, Process Improvement, and Decision-making.

#### ACCOMPLISHMENTS

- Above and Beyond Award
- Owner of the PIN (Process Improvement Network) Newsletter (PRISM)
- Co-Owner of the (Business Process Management, Project Management Tool) BPM PMT Global Backup Administrator
- Lean/Six Sigma Greenbelt Certification, August 2015

#### LIST OF DOCUMENTED LEAN EVENTS:

- 1. US Organizational Change Lean Event
- 2. Global Maintain Product Master Lean Event
- 3. Global Maintain Vendor Master Data Lean Event
- 4. Talent Acquisition & Compensation Lean Event
- 5. Product Master Data Lean Event
- 6. Data Center Operations Global Data Backup Lean Event
- 7. Global LRP Process Lean Event
- 8. US ASRU Field Testing Lean Event
- 9. US Plot Seed Lean Event
- 10. US Soybean Bulk Order & Delivery Lean Event