The Alignment of Culture, Leadership, and Other Institutional Practices to Support the Successful Implementation of Lean Higher Education

Presentation to

4th International Lean Six Sigma Conference

May 25, 2017

Bill Balzer *(wbalzer@bgsu.edu)*

   Vice President, Faculty Affairs & Strategic Initiatives

   Professor, Industrial-Organizational Psychology

Bowling Green State University, Bowling Green OH, USA

What is Lean?

"Lean [Higher Education] provides a way to do more and more with less and less – less human effort, less equipment, less time, and less space – while coming closer and closer to providing customers with exactly what they want."
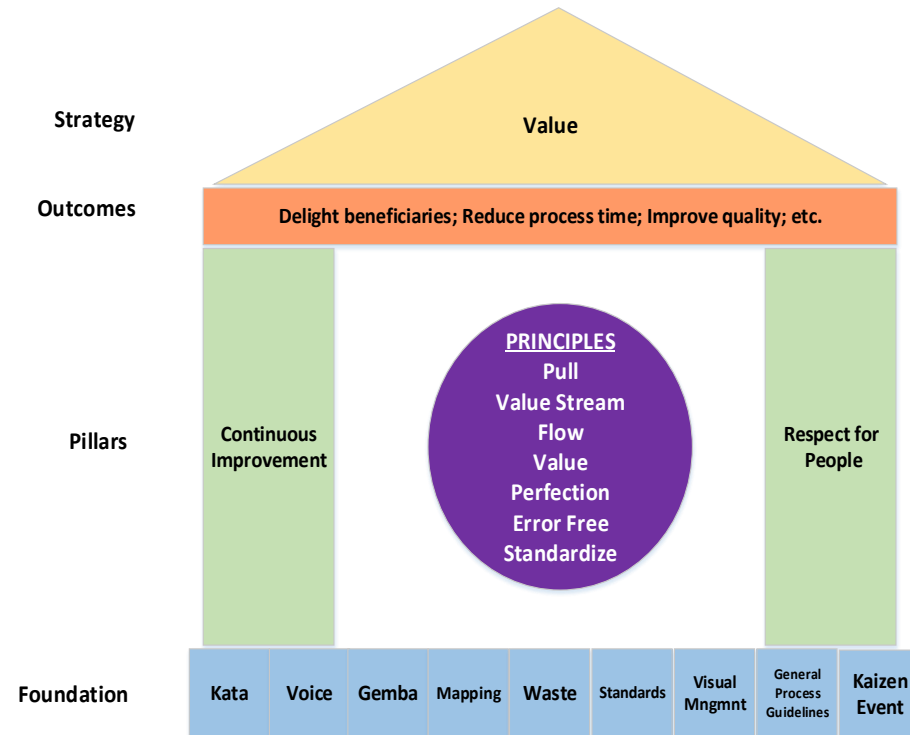
(Womack & Jones, 2003, p. 15)

The Two Pillars of Lean Higher Education (LHE)

Continuous Improvement

Create a culture that constantly examines and improves work processes using Lean principles and practices (e.g., PDCA or DMAIC cycle)

Respect for People

Engage employees who identify which process are broken and teach them Lean skills to fix them

Strategy	Value
Outcomes	Delight beneficiaries; Reduce process time; Improve quality; etc.

PRINCIPLES
Pull
Value Stream
Flow
Value
Perfection
Error Free
Standardize

Pillars — Continuous Improvement / Respect for People

Foundation — Kata | Voice | Gemba | Mapping | Waste | Standards | Visual Mngmnt | General Process Guidelines | Kaizen Event

Lean Higher Education: House of Lean (Balzer, 2016)

Lean Higher Education (LHE)

- **A self-sustaining organizational <u>change philosophy</u> with operational strategy**
- **A powerful <u>tool for implementing change</u> in HE that:**
  - Focuses on improving university processes that serve your "beneficiaries"
  - Empowers employees who know these processes to improve them
  - Follows established Lean principles and practices demonstrated to work
  - Non-Zero Sum: Win-Win-Win for beneficiary, employee, and campus/college or university

Sustainability of Lean Implementation

Percentage of organizations that continued Lean after implementation:

- Bhasin & Burcher (2006)   10%
- Mohanty, Yadiv, & Jain (2010)   15%
- Bicheno & Holweg (2009)   10%
- Taleghanis (2010)   10%

Overall: High failure rate

Source: Scoggin, S.C. (2017)

"At their core, higher education institutions do not function like corporations, hospitals, or any other type of for-profit or nonprofit organization … Irrational systems, nebulous and multiple goal structures, complex and differentiated campus functions, conflicts between espoused and enacted values, and loosely coupled systems of organization and governance are just some of the dynamics that make organizational change in higher education so hard."

Williams, Berger, & McClendon (2005)

Why Such a High Failure Rate?

- Lean doesn't work – it dies off
- What is called Lean is not really Lean – it dies off
- Lean is big business for nomadic consultants – it dies off when consultants leave
- Lean is not sustained (e.g., new leadership, focus shifts to new shiny things, loss of interest/energy/resources) – it withers or is killed off
- Lean is the wrong solution to the yet-unspecified problem – it dies off
- Lean is not implemented as large-scale change – it is killed off
- All poorly implemented large-scale change efforts fail – including Lean

Supporting the Successful Implementation of LHE (as Large Scale Change):
Overview of Today's Presentation

I. Best Practices for Implementing LHE Change

II. Supporting the Successful Implementation of LHE Change

III. Considering the Two Most Critical Factors in the Successful Implementation of LHE Change: Climate/Culture and Leadership

IV. Questions and Reactions

I. Best Practices for Implementing LHE Change

A. Implementing Large Scale Change

B. Organizational Development & Change: Theories and Models of Practice

C. Organizational Development & Change: Practices That Change Workplace Behaviors and Attitudes/Perceptions

D. EXAMPLE: Organization Analysis and Change: Physical and Psycho-Social Structures of the Organization

A. Implementing Large Scale Change: Best Practices
(Hedge & Pulakos, 2002)

- Context of Change
  - Vision-Driven or Gap-Driven Change
  - Maintaining a Systems Perspective
  - Valuing Resistance to Change
- Management and Motivation of the Human Resource
  - Change Leadership
  - Personal Adaptation to Change
  - Participation
  - Transition Planning

B. Organizational Development & Change: Theory and Models of Practice (Porras & Robertson, 1992)
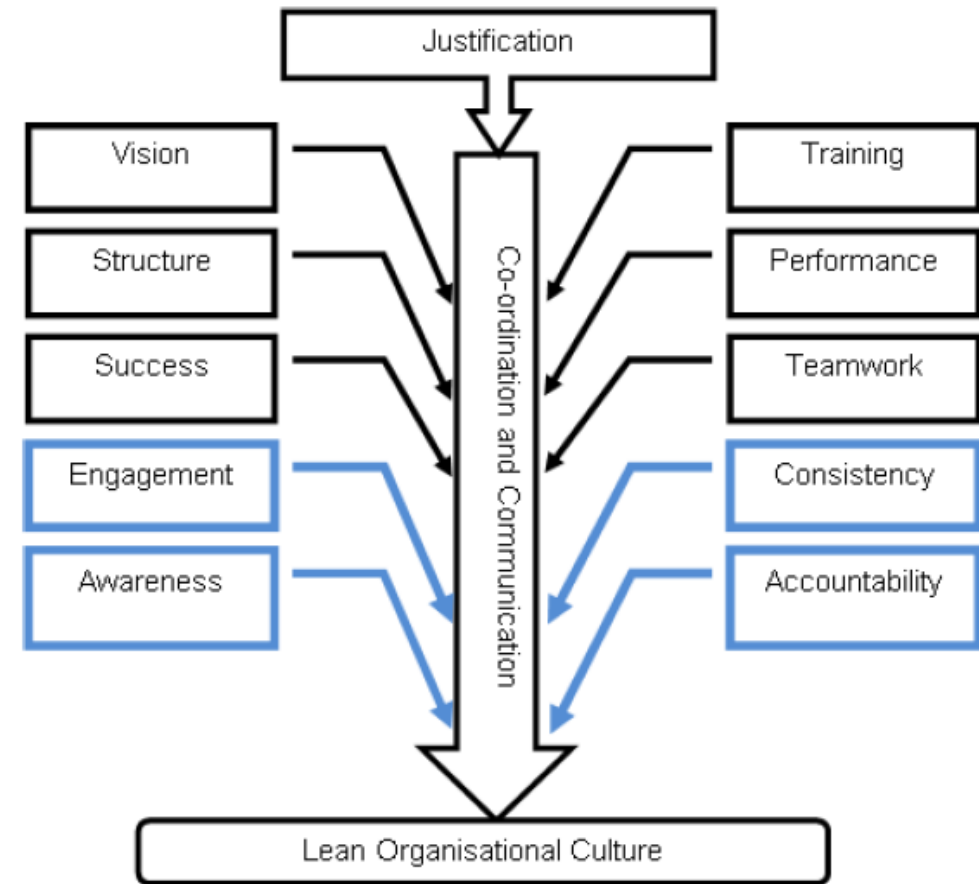
- Change Process Theories: underlying dynamics of the planned change process within the organization
  - Factors that can be manipulated by the OD intervention
  - Outcomes intended by the change efforts
  - Factors that mediate the effects of the manipulated factors on the outcomes
  - Causal relations between the manipulated factors, the mediator factors, and the outcomes
  - Relevant moderating factors that affect the specified causal relationship
- Implementation Theories: actions undertaken by change practitioners when effecting planned change

Change Process Theory:
Developing a Lean Culture Causal Framework to Support Lean Implementation (Van der Merwe, Pieterse, & Lourens, 2014)

- **Culture is critical to Lean success**
  - Blue components are unique to Lean culture
- **Culture is an effect, not a cause**
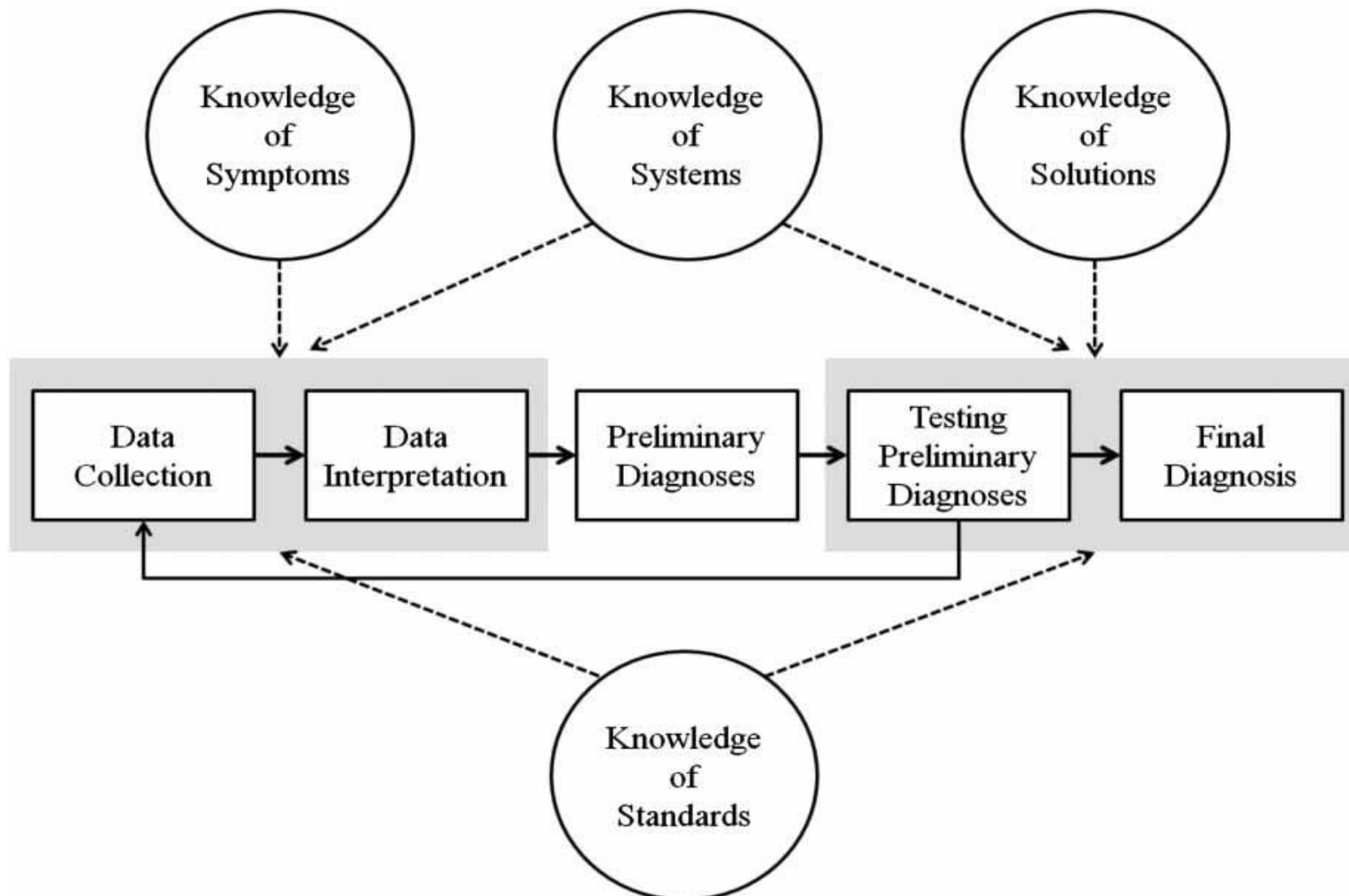 - Intentional Lean behaviors by leaders create Lean culture

B. Organizational Development & Change: Theory and Models of Practice

- Change Process Theories: underlying dynamics of the planned change process within the organization

- Implementation Theories: actions undertaken by change practitioners when effecting planned change (e.g., Procedures Theory)
  - Prescribed intervention steps
  - Diagnostic variables to be identified
  - Criteria for choosing which specific intervention to use
  - Conditions for effective change
  - Characteristics of effective change agents

Implementation Theory: Organizational Diagnosis: An Evidence-Based Approach (McFillen, O'Neil, Balzer, & Varney, 2013)

C. Organizational Development & Change: Practices That Change Workplace Behaviors & Attitudes/Perceptions

- Organizational **Analysis**: Determine misalignment of institutional practices

- Organizational **Development**: Improve alignment of institutional practices

- Organizational **Effectiveness**: Full alignment of institutional practices

D. EXAMPLE.
Organizational Analysis:
Physical and Psycho-Social Structures of a University

Physical Structures

- Vertical Differentiation

- Span of Control

- Centralization of Authority

- Formalization

- Departmentation

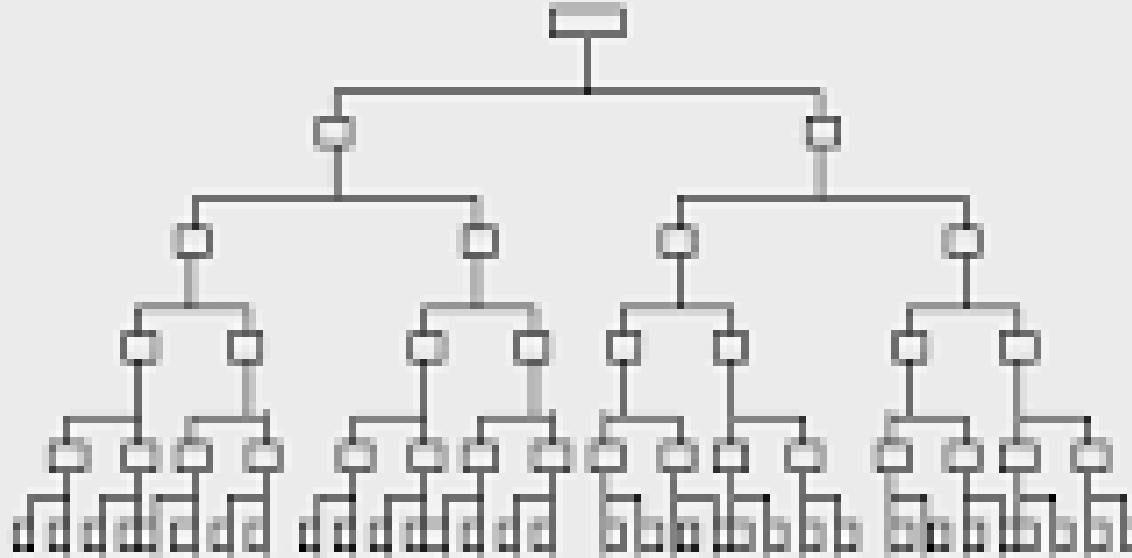- Line-Staff Differentiation

Psycho-Social Structures

- Goals

- Activities and Roles

- Interaction and Communication

- Power and Influence

- Status and Esteem
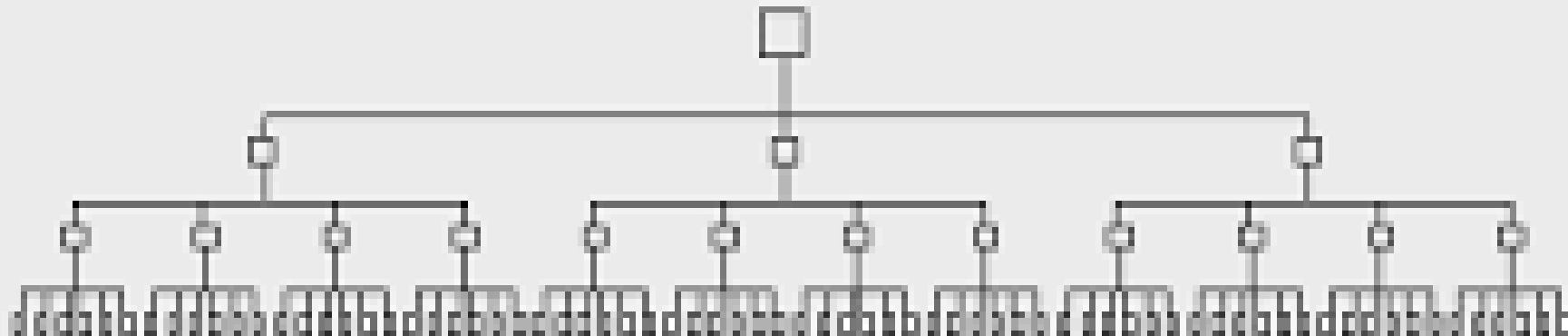
Katz, D., & Kahn, R. L. (1978)
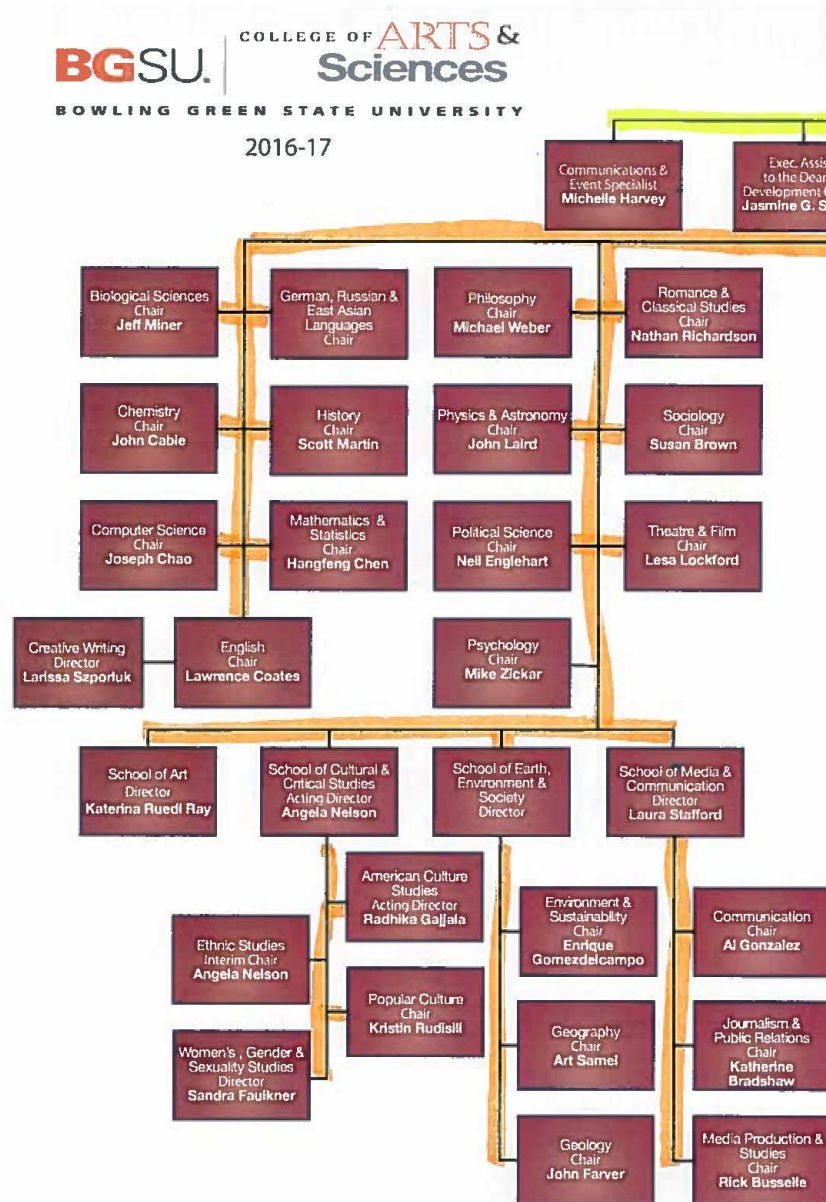
Physical Structures: Traditional University Design

Physical Structure	Traditional University
Vertical Differentiation	Decision making power increases as level in university increases (some horizontal differentiation for faculty); level determines your role in decision making
Span of Control	Closer oversight and managerial control (because of less standardization of work, outputs, and skills)
Centralization of Authority	Academic Functions: Range of centralized - decentralized; Nonacademic Functions: Centralized; legitimate/reward/coercive power held by limited set of supervisors/managers
Formalization	Limited formalization of jobs by workflow and rules; clear chain of command to be followed for communication and decision making
Departmentation	Units are grouped by function (stovepipes/silos?)and not processes or work flow interdependencies
Line-Staff Differentiation	Significant support staff to administer and monitor processes; decisional authority that impacts the core operations of higher education

Tall Organization
(More formalization & vertical differentiation; Less span of control)

Flat Organization
(Less formalization & vertical differentiation; wider span of control)

Orange: Line departmentation and responsibility for core activities
Yellow: Staff departmentation and responsibility for support activities

Psycho-Social Structures:
Traditional University Design

Psycho-Social Structure	Traditional University
Goals	Often lacking or incongruous, with limited connection between job and university success
Activities & Roles	Limited opportunity to change work; role ambiguity and role conflict due to job design; distinct roles for supervisors
Interaction & Communication	Typically assymetrical (downward) and infrequent; interaction influenced by group/departmentation; supplemented by informal communication & interaction
Power & Influence	Top down supervision due to centralized power; influence is often confounded with role
Status & Esteem	Positional status from vertical differentiation and title, with rewards that follow; esteem bestowed (based on education and experience) in limited circumstances

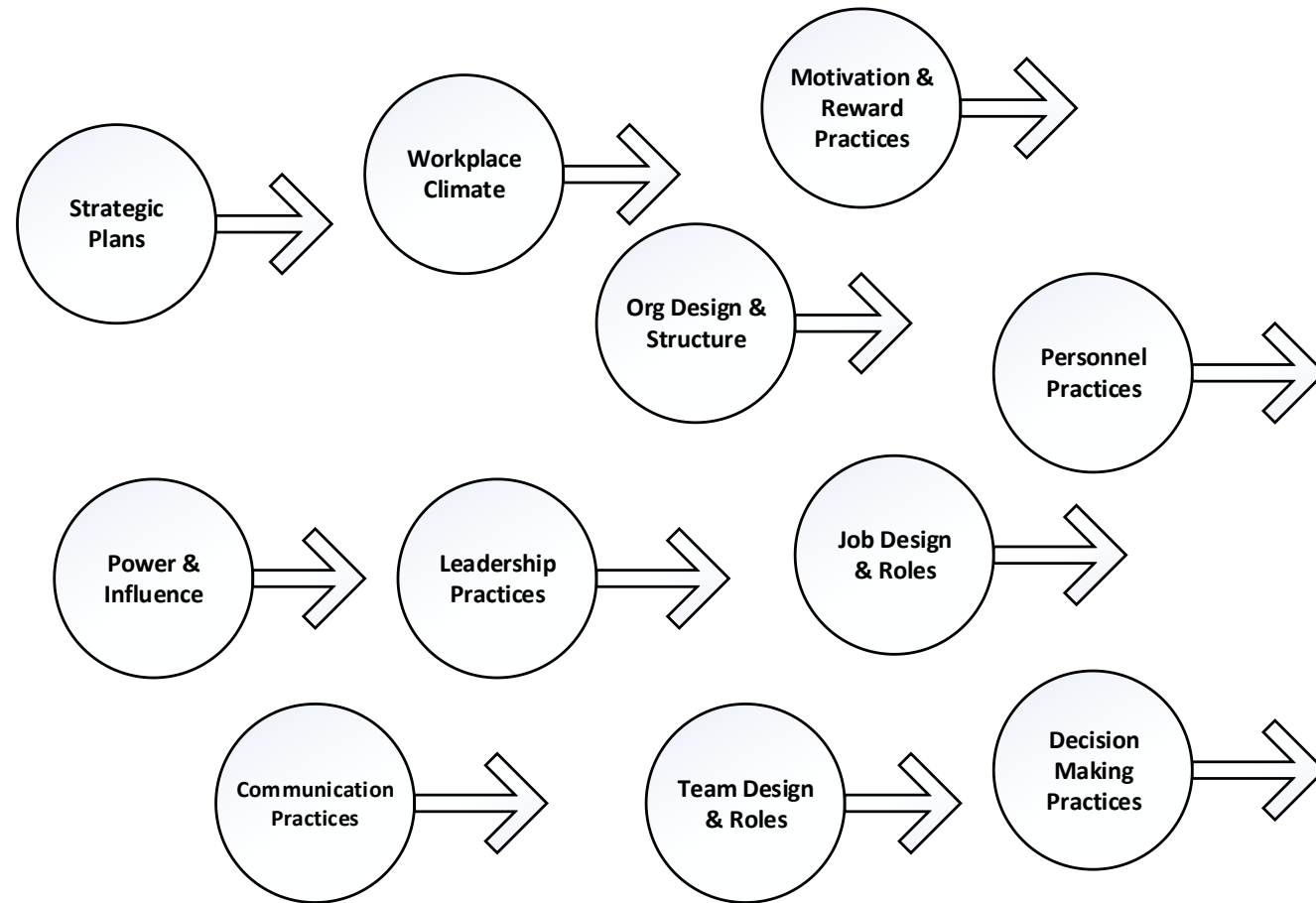# Physical & Psycho-Social Structures Impose Institutional Practices

- Strategic Plans
- Organizational Design & Structures
- Job Design & Roles
- Team Design & Roles
- Leadership Practices

- Personnel Practices
- Power & Influence
- Motivation & Reward Practices
- Communication Practices
- Decision Making Practices
- Workplace Climate

UNINTENTIONAL MISALIGNMENT OF INSTITUTIONAL PRACTICES

ORGANIZATIONAL EFFECTIVENESS

Strategic Plans

Workplace Climate

Motivation & Reward Practices

Org Design & Structure

Personnel Practices

Power & Influence

Leadership Practices

Job Design & Roles

Communication Practices

Team Design & Roles

Decision Making Practices

Organizational Development and Lean University Design: Physical Structures

Physical Structure	Traditional University	Lean University
Vertical Differentiation	Decision making power increases as level in university increases	**Decision making pushed down to those who know the process**
Span of Control	Closer oversight and managerial control (because of less standardized work, output, and skills)	**More autonomy to individuals (and self-managed teams) based on standardized output**
Centralization of Authority	Decisions are likely to be centralized and top down	**Decision making is shared with employees empowered to change process**
Formalization	Limited formalization of jobs by workflow and rules	**Employees understand the complete process and their role in adding value**
Departmentation	Units are grouped by function (silos and stovepipes)	**Units are grouped by process families (workflow interdependencies)**
Line-Staff Differentiation	Significant support staff that monitors; decisional authority to resolve problems that impact core operations	**Employees monitor their work and are involved in any change to core operations (all employees add value)**

Organization Development and Lean University Design: Psycho-Social Structures

Psycho-Social Structure	Traditional University	Lean University
Goals	Often lacking or incongruous, with limited connection between job and university success	**Providing value to beneficiaries; commitment to continuous improvement**
Activities & Roles	Limited opportunity to change work; role ambiguity and role conflict due to job design; distinct roles for supervisors	**Clear role responsibilities and role interdependence; cross-functional teams; improvement kata (DMAIC; PDCA); employee engagement**
Interaction & Communication	Typically assymetrical (downward) and infrequent; interaction influenced by departmentation; supplemented by informal communication & interaction	**Frequent communication in all directions; on demand by employee; visual management**
Power & Influence	Top down supervision due to centralized power; influence is often confounded with role	**Empowered employees (andon cord); leadership kata (coaching to individual success); Lean experience respected**
Status & Esteem	Positional status from vertical differentiation and title, with rewards that follow; esteem bestowed in limited circumstances	**Respect for people; influence from Lean expertise regardless of position**

INTENTIONAL ALIGNMENT OF INSTITUTIONAL PRACTICES

ORGANIZATIONAL EFFECTIVENESS

II. Supporting the Successful Implementation of LHE Change

A. Is a University Ready for LHE Change?
   (Pfeffer & Sutton, 2006)

B. Resistance to Change

C. Overcoming Resistance to Change

A. Is Your University Ready for Change? Eight Questions (Pfeffer & Sutton, 2006; slide 1 of 2)

- *Will the adoption of LHE **result in improvements** on what the university now accomplishes?*

- *Is the change expected from LHE really **worth the time** and money required **and the disruption** and challenges expected?*

- *Would it be better to implement **symbolic changes** with less risk and less benefit rather than core change with significant risk and significant benefit?*

- *Is the decision to adopt LHE influenced by a personal career agenda or the **best interests** of the **university**?*
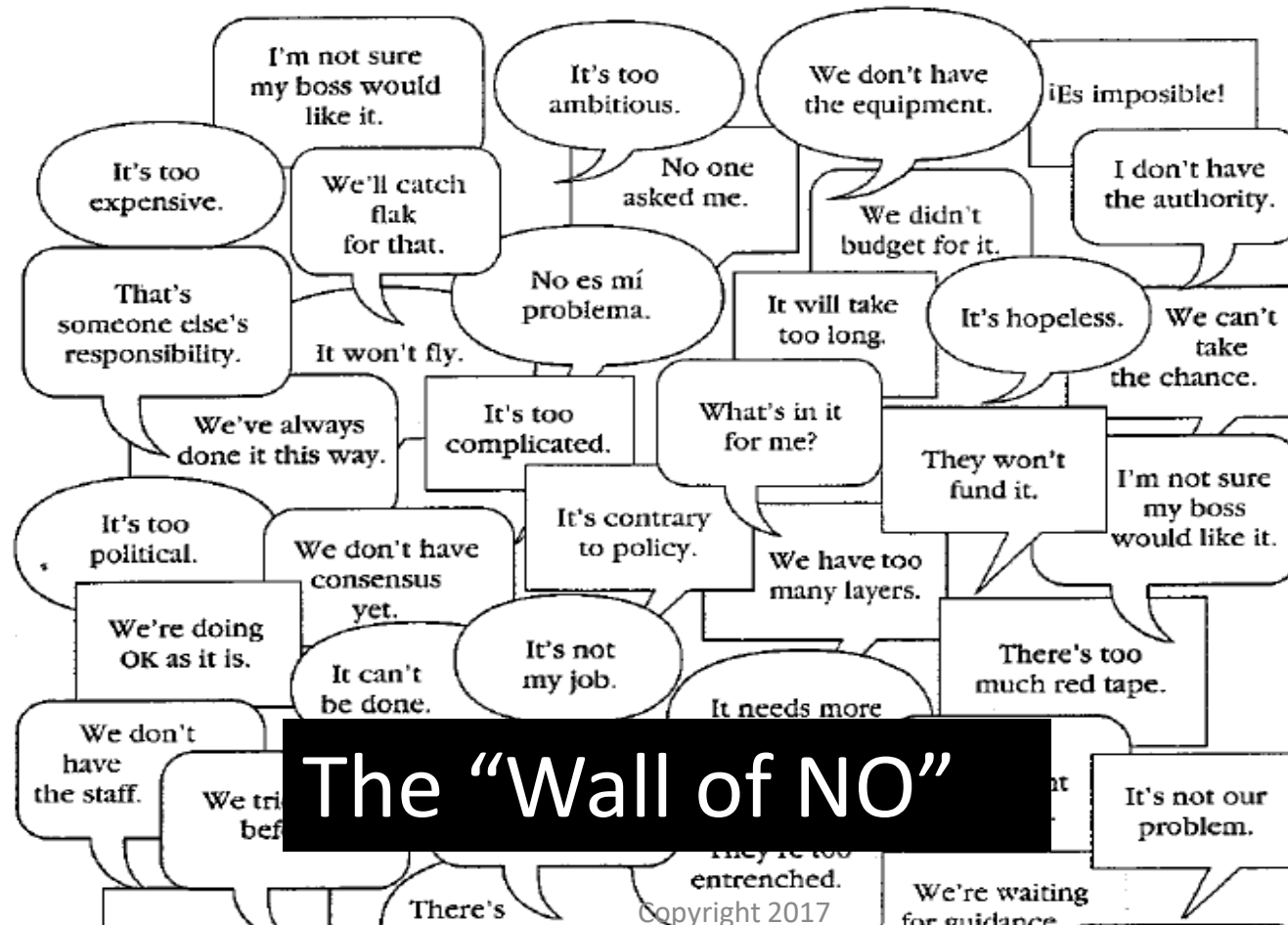
A. Is Your University Ready for Change? Eight Questions (Pfeffer & Sutton, 2006; slide 2 of 2)

- *Will the adoption of LHE have the needed sources and levels of power and **support to implement and sustain** change?*

- *Are faculty and staff and other constituencies **already overwhelmed by** too many **changes** at the university to embrace LHE?*

- *Will faculty and staff and other constituencies be able to **learn and adapt** in response to circumstances after LHE is introduced?*

- *If necessary, would the university be **able to reverse course** if the adoption of LHE did not work?*

B. Resistance to Change

50 Reasons Not To Change

The "Wall of NO"

Medical Metaphor for Resistance to Change: Organizational Infection and Immunology

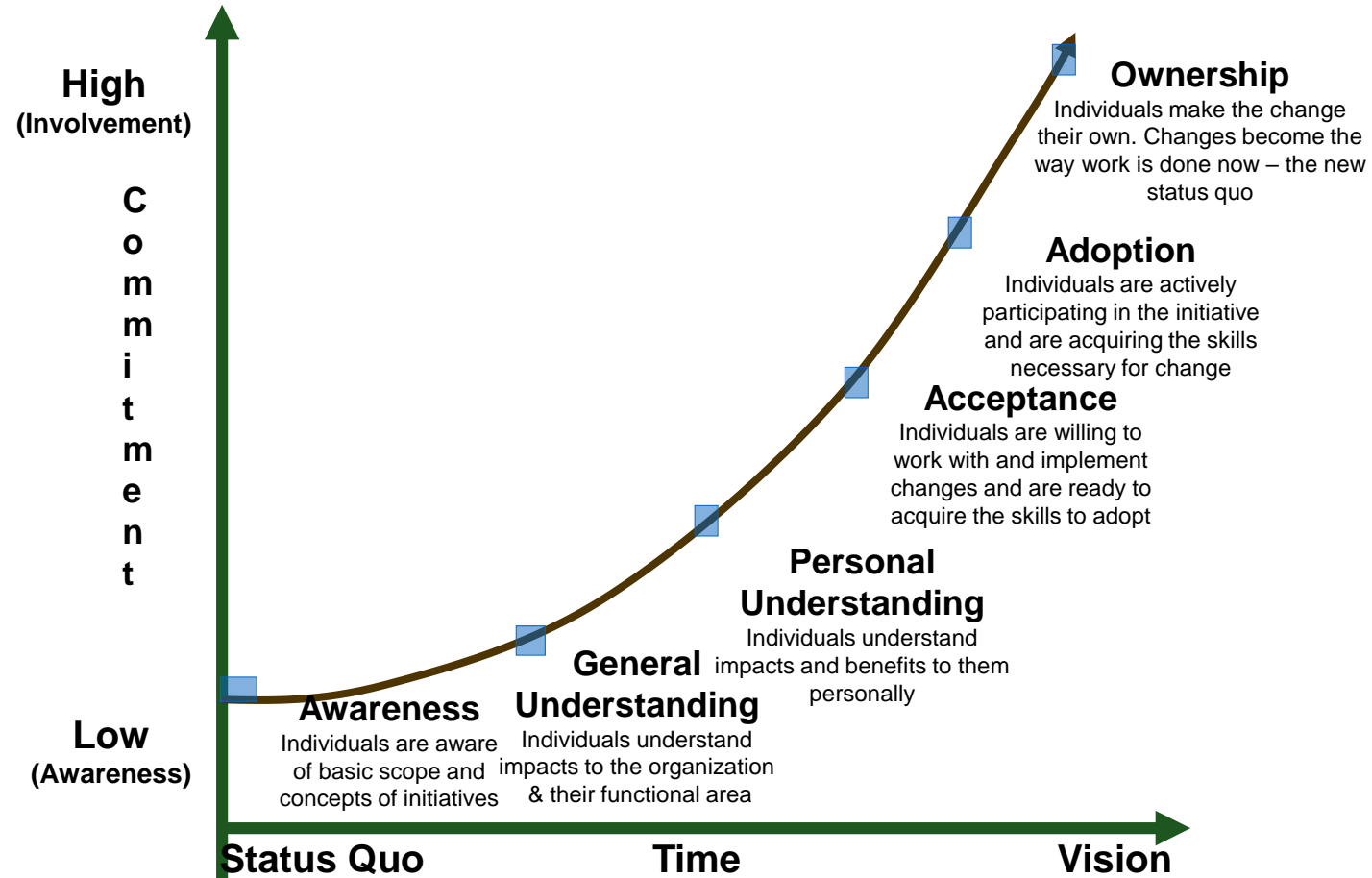## The Infected Organization: Change for the Sake of Change

- Change virus infects all organizations, requiring ongoing need to change (not driven by external environment but internal disease)
- Change virus mutates, resulting in different fads and fashion

The Resistant Organization: Protective Immune System

- Overly active immune response: Nothing from the outside is permitted to survive
- Insufficiently strong immune response: bad leadership can infect and do great damage

Abrahamson, 1996; Myers, Hulks, & Wiggins, 2012; Watkins, 2007)

Building Commitment To Change

High
(Involvement)

C
o
m
m
i
t
m
e
n
t

Low
(Awareness)

Ownership
Individuals make the change their own. Changes become the way work is done now – the new status quo

Adoption
Individuals are actively participating in the initiative and are acquiring the skills necessary for change

Acceptance
Individuals are willing to work with and implement changes and are ready to acquire the skills to adopt

Personal Understanding
Individuals understand impacts and benefits to them personally

General Understanding
Individuals understand impacts to the organization & their functional area

Awareness
Individuals are aware of basic scope and concepts of initiatives

Status Quo   **Time**   **Vision**

Tool #1: Force Field Analysis

- Brainstorm a list of forces that will help implement the proposed change (Driving forces)
- For each driving force, list a Restraining Force that will work against implementation
- Analyze the diagram to understand the areas you can influence
- Plan and take appropriate action

Force Field Analysis

Driving Forces   Restraining Forces

Status Quo   Desired State

Why LHE?: Strengthening Driving Forces to Change

- Explain what attracts you to future improved state or vision

- Show opportunities that lie ahead when strategic goals are realized

- Offer guarantees (e.g., no loss of employment; commitment to current university mission)

- Provide a clear statement of opportunity

- Move to intentionally align institutional practices to strengthen Driving Forces

Why LHE?: Valuing & Overcoming Restraining Forces to Change

- Explain challenges that exist today that require change

- Provide clear statement of problem

- Share thinking that requires you to let go of the past

  - remembering to "honor the past"

- Move to intentionally align institutional practices to weaken Resisting Forces

III. Considering the Two Most Critical Factors in the Successful Implementation of LHE Change: Climate/Culture and Leadership

A. Is there a supportive workplace climate for LHE?

B. Will leadership practices implement and sustain LHE?

A. Is there a Supportive Workplace Climate for LHE? (Stringer, 2002)

- **Climate of Standards**. *A workplace committed to high standards and continuous improvement to improve processes*

- **Climate of Support**. *Faculty & staff ideas and talents are expanded through professional development and risk taking to improve processes*

- **Climate of Commitment.** *Personal enthusiasm and energy of employees to improve processes*

Note: van der Werse et al. (2014) Lean Culture: **Engagement**, Awareness, Consistency, & **Accountability**

Organizational Analysis & Development: Assessing & Improving Climate

- Assessing Climate
  - Surveys
  - Key informants
- Improving Climate
  - Change consultant
  - Leadership statements and behaviors
  - Alignment of institutional practices (training, reward system, planning, etc.)

B. Will Leadership Practices Implement and Sustain LHE?

The ability of leadership practices to support and sustain LHE will depend on:

- **Power** of the leader (i.e., university-provided)
- **Influence** of the leader (i.e., personally earned); Charisma
- Personal and sustained **commitment** of the leader
- **Competition** for the leader's available resources
- Leader **stability**

Leadership Actions and Reaction to Support and Sustain LHE

"Another leader initiative – this too shall pass."
- Demonstrate LHE is a strategy and culture, not a fad

"We've done well, why change if we don't have to?"
- Communicate the "burning platform" for change

"Let my unit choose what's best for us."
- Emphasize the synergy of a common strategic approach

"This is just a way to cut costs and jobs."
- Commitment to reduce waste, not workforce

"I'll join when I see that the leaders are on board."
- Active participation in LHE training, kaizen, report out

"How can we afford this new program?"
- Show the hidden direct and indirect costs of bad processes

"Who can lead this?"

- Invest in release time to develop LHE experts

"My job won't allow me to be in a 3 day workshop. "

- Demonstrate LHE as the new strategy/culture through workshop attendance and other LHE activities

"I can't risk failure in changing my process, or letting someone else change my process."

- Create LHE teams, accountability, goals, and expectations across divisional silos and levels of the institution

"Standard work stifles creativity, our most important asset."

- Standardized output ≠ Standardized work
- Emphasize that standardization precedes creativity (surgeons and astronauts standardize based on evidence, then innovate from standardization using evidence)
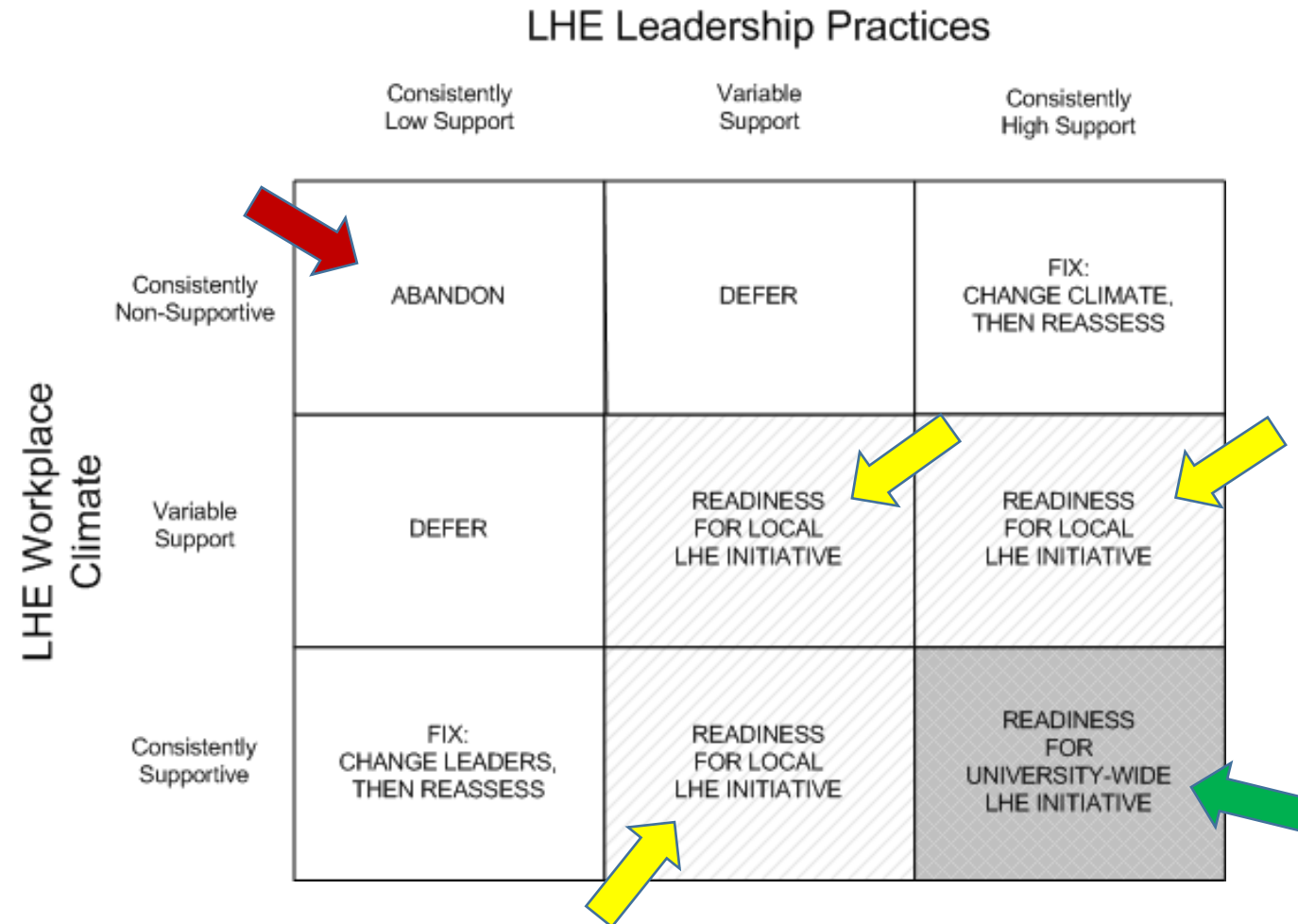
BUT: Will Leaders Support LHE?

- LHE is self-imposed change
- LHE changes the roles of leaders
- Leadership actions and reaction are critical to the success of LHE
  - Institutional climate neutral/hostile to change will influence receptivity to LHE
  - Significance of the process to university
  - The large number of individuals inside and outside the university who are affected by LHE

Deciding Whether to Implement LHE
Two Critical Factors Influencing Readiness and Successful Implementation
(Balzer, 2010)

Conclusions

- LHE is large scale change
- LHE can be successfully implemented and sustained
- Many/Most LHE projects fail
- Discipline of organizational development and change can greatly improve LHE readiness and success
- But if you can only focus on two factors:
  - Leadership
  - Climate/Culture

References

- Abrahamson, E. 1996. Management Fashion. *Academy of Management Review*, 21(1): 254–285.

- Balzer, W. (2010). *Lean higher education: Increasing the value and performance of university processes*. Boca Raton, FL: CRC Press.

- Katz, D., & Kahn, R.L. (1978). The Social Psychology of Organizations (2nd Ed.). New York: John Wiley & Sons.

- McFillen, J.M., O'Neil, D.A., Balzer, W.K., & Varney, G.H. (2013). Organizational Diagnosis: An Evidence-Based Approach. Journal of Change Management, 13, 223-246.

- Myers, P., Hulks, S., & Wiggins, L. (2012). Organizational Change: Perspectives of Theory and Practice. Oxford: Oxford University Press.

- Pfeffer, J., and Sutton, R. (2006), *Hard Facts, Dangerous Half-Truths, and Total Nonsense: Profiting from Evidence-Based Management,* Harvard Business School Press, Boston.

- Porras, J.I., & Robertson, P.J. (1992). Organizational Development: Theory, Practice, and Research. In M. Dunnette and L. Hough (Eds.). Handbook of Industrial and Organizational Psychology. Palo Alto, CA: Consulting Psychologists Press.

- Scoggin, J.C. (2017). *The Interdependency of Lean Implementation and Organization Development.* Dissertation, The Chicago School of Professional Psychology. Proquest Number: 10263384.

- Stringer, R. (2002), *Leadership and organizational climate,* Prentice-Hall, Upper Saddle River, NJ.

- Van der Merwe, K.R., Pieterse, J.J., & Lourens, A.S. (2014). The Development of a Theoretical Lean Culture Causal Framework to Support the Effective Implementation of Lean in Automotive Component Manufacturers. *South African Journal of Industrial Engineering, 25*, 131-144.

- Watkins, M. (2007). Organizational Immunology (Part1: Culture and Change). https://hbr.org/2007/06/organizational-immunology-part-1

- Watkins, M. (2007). Organizational Immunology (Part2: Brains and Immune Systems … and a personal note. https://hbr.org/2007/06/organizational-immunology-part-2

- Williams, D.A., Berger, J.B., & McClendon, S.A. (2005). Toward a Model of Inclusive Excellence and Change in Postsecondary Institutions. Association American Colleges and Universities.

- Womack, J.P., & Jones, D.T. (2003). *Lean Thinking: Banish Waste and Create Wealth in Your Corporation* (Revised and updated). New York: Free Press.

Thank You

IV.
What Questions do you have for me?
What Reactions would you like to share?