Liberating Structures:

A Novel Approach to IPAC Challenges

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November 1, 2019

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Disclosures

- No conflicts of interest

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Learning Objectives

- To learn about Liberating Structures (LS) as a way of engaging team members and stakeholders in productive, purposeful, inclusive ways
  - Theoretical basis and supporting evidence
- To experience LS first hand and learn how they can be used in your daily work

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Impromptu Networking

Rapidly Share Challenges and Expectations, Build New Connections

Impromptu Networking

Rapidly Share Challenges and Expectations, Build New Connections

- Find 1 new person and introduce yourself
- 2 questions, 2 minutes each to discuss
- 3 cycles each with a new partner

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Impromptu Networking

Rapidly Share Challenges and Expectations, Build New Connections

- Introduce yourself to your partner.
- What is one big **challenge** you (or your IPAC team) are facing right now?
- What do you hope **to give** and **to get** from participating in this session today?

Find a partner and share. Then find another partner. And another!

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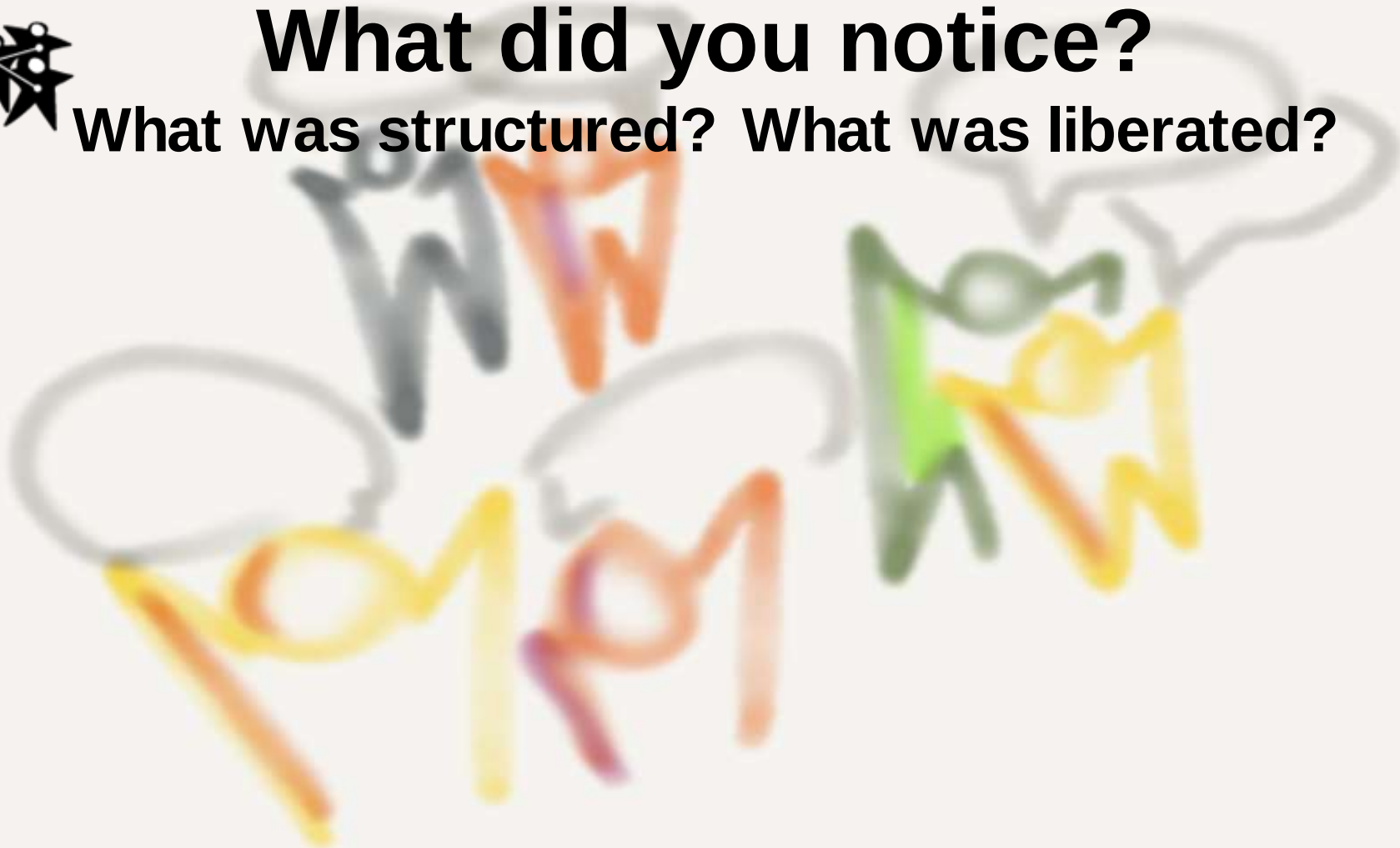
What did you notice?

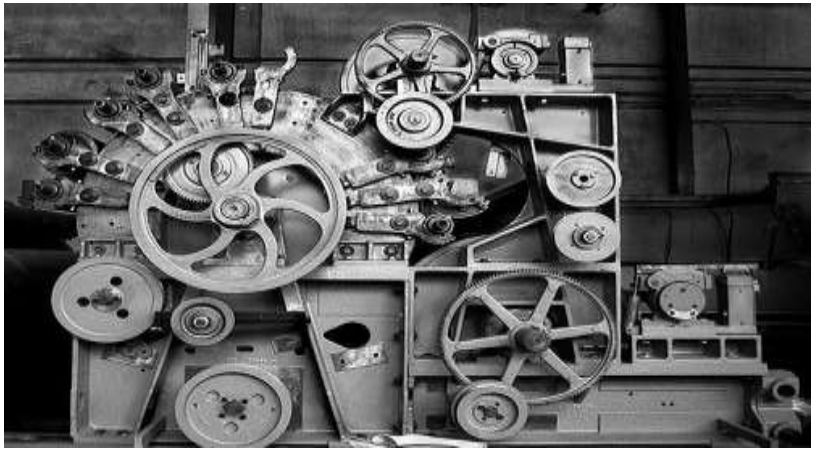
What was structured? What was liberated?



THEORY AND SUPPORTING EVIDENCE

Organizational Behaviour

Traditional View



Complex Adaptive System

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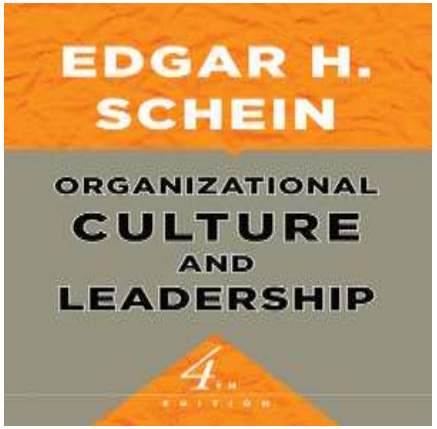
Organizational Culture: Definition

“A pattern of shared basic assumptions that was learned by a group as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems.”



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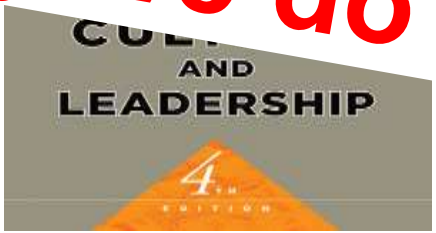
Organizational Culture: Definition

"A pattern of shared basic assumptions that was learned by a group as it solved its external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems."

"The way we do things around here and why we do them"



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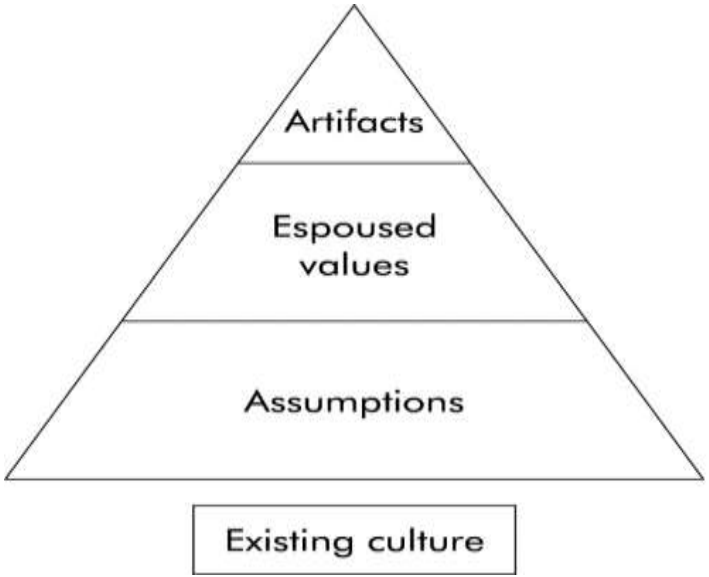
Components of Organizational Culture



Qual Saf Health Care 2004;13:ii16-ii21 (Modified)

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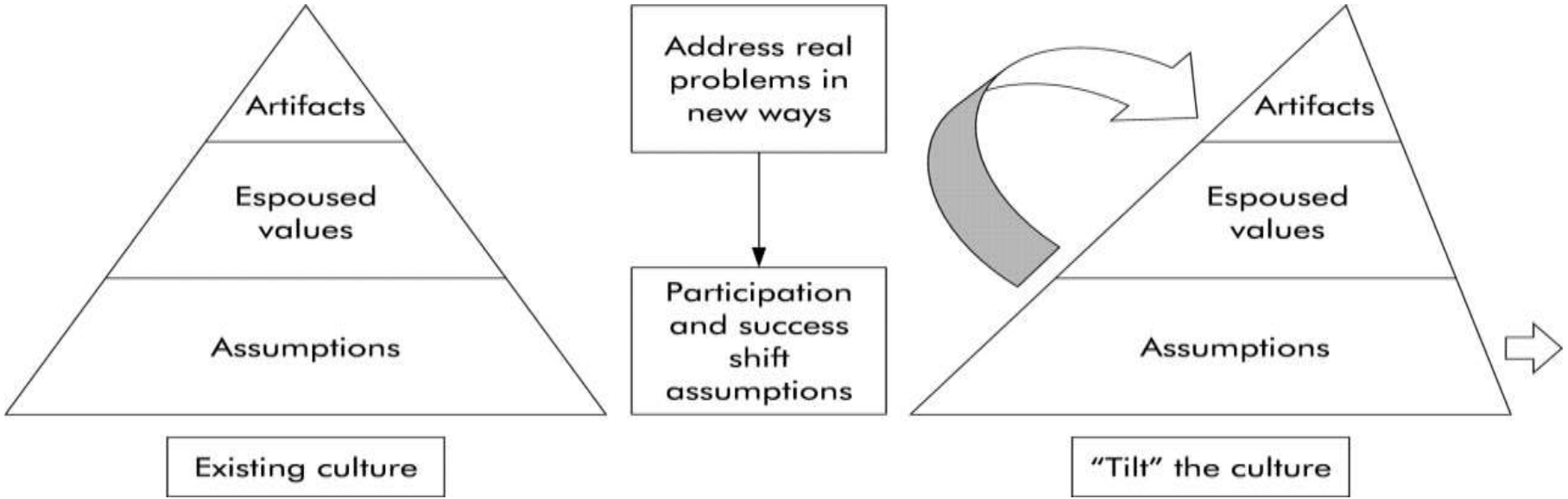
Culture Change



Qual Saf Health Care 2004;13:ii16-ii21

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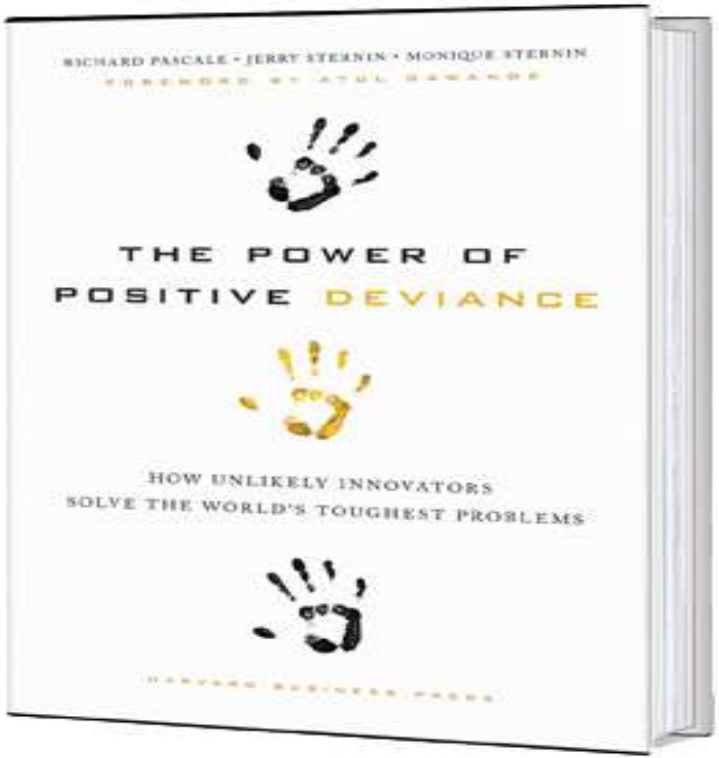

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Theory of Positive Deviance

- “[I]n most settings a few at risk individuals follow uncommon, beneficial practices and consequently experience better outcomes than their neighbours who share similar risks”
- The positive deviance (PD) process discovers these “positive deviants” and facilitates the spread of their practices throughout the population

Brit Med J 2004;329:1177-9

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The Story of PD

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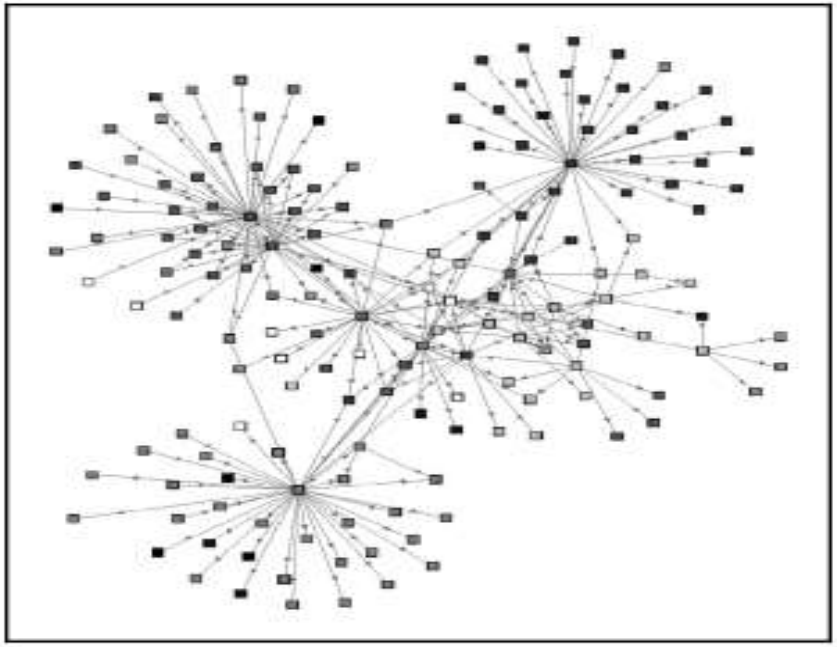
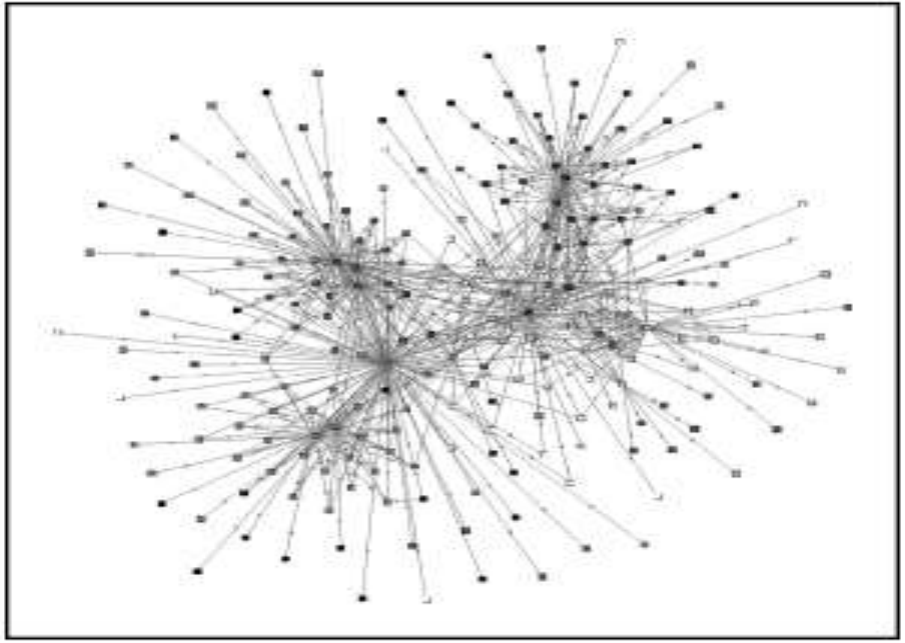
Changing Relationships, Changing Culture

Before PD



After PD



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J Nursing Admin 2010;40:150-3

Front-Line Ownership: Generating a Cure Mindset for Patient Safety

INVITED ESSAY

Brenda Zimmerman, PhD
Schulich School of Business, York University

Paige Reason, MPH
Infection Prevention and Control Unit, University Health Network
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Leah Gitterman, MHSC
Infection Prevention and Control Unit, University Health Network

Jennifer Christian, MA
Formerly of Public Health Ontario

Michael Gardam, MD
Infection Prevention and Control Unit, University Health
Formerly of Public Health Ontario
Faculty of Medicine, University of Toronto

Front-Line Ownership

Positive Deviance

+

Complexity Science

Context and social proof

Need for increased interconnectivity

+

Engagement Tools

Liberating structures

=

Front-line Ownership

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Healthcare Papers 2013;13(1):6-22

It is easier to act your way into a new way of thinking than to think your way into a new way of acting."

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Healthcare Papers 2013;13(1):6-22

Canadian FLO Study

- 5 hospitals in BC and Ontario participated over 18 months
- IPAC interventions unique to each site were developed and implemented by front-line staff
- Outcomes
  - Infection rates on FLO units decreased by half
  - All units except 2 decreased compared to their respective hospital rates
  - No meaningful change in process measures except the one hospital that measured hand hygiene compliance increased by 30%
  - Increase in interconnectivity at all sites

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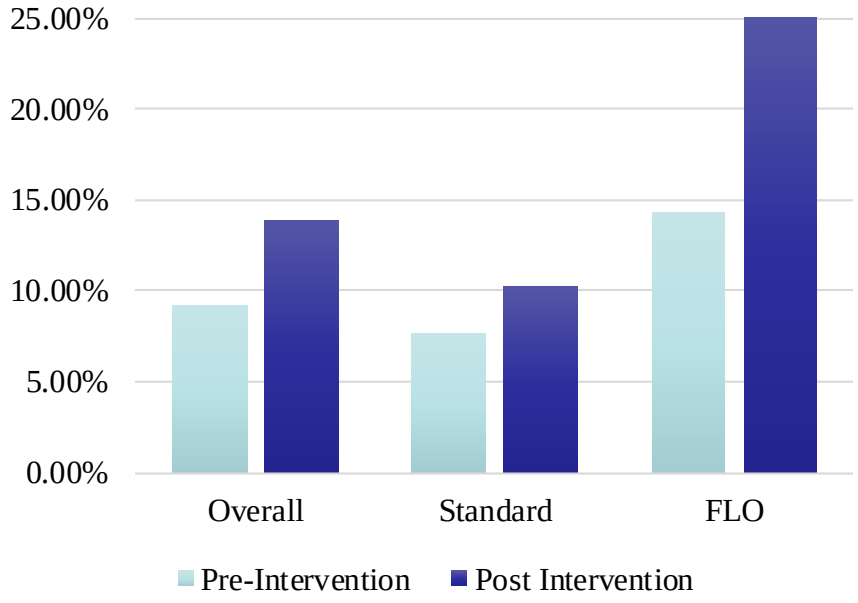
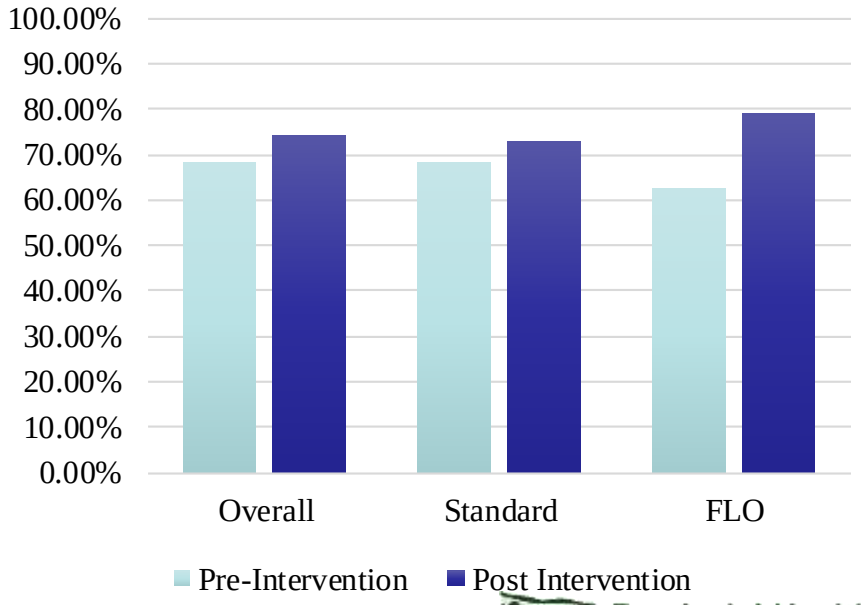
Healthcare Papers 2013;13(1):6-22

BC Children's & Women's Hand Hygiene Study

Patients/Visitors



HCWs



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Am J Infect Control 2019; in press.

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Veterans Affairs Initiative to Prevent Methicillin-Resistant *Staphylococcus aureus* Infections

Rajiv Jain, M.D., Stephen M. Kralovic, M.D., M.P.H., Martin E. Evans, M.D., Meredith Ambrose, M.H.A., Loretta A. Simbartl, M.S., D. Scott Obrosky, M.S., Marta L. Render, M.D., Ron W. Freyberg, M.S., John A. Jernigan, M.D., Robert R. Muder, M.D., LaToya J. Miller, M.P.H., and Gary A. Roselle, M.D.

New Engl J Med 2011;364:1419-30

METHODS

A "MRSA bundle" was implemented in 2007 in acute care VA hospitals nationwide in an effort to decrease health care–associated infections with MRSA. The bundle consisted of universal nasal surveillance for MRSA, contact precautions for patients colonized or infected with MRSA, hand hygiene, and a change in the institutional culture whereby infection control would become the responsibility of everyone who had contact with patients. Each month, personnel at each facility entered into a central database aggregate data on adherence to surveillance practice, the prevalence of MRSA colonization or infection, and health care–associated transmissions of and infections with MRSA. We assessed the effect of the MRSA bundle on health care–associated MRSA infections.

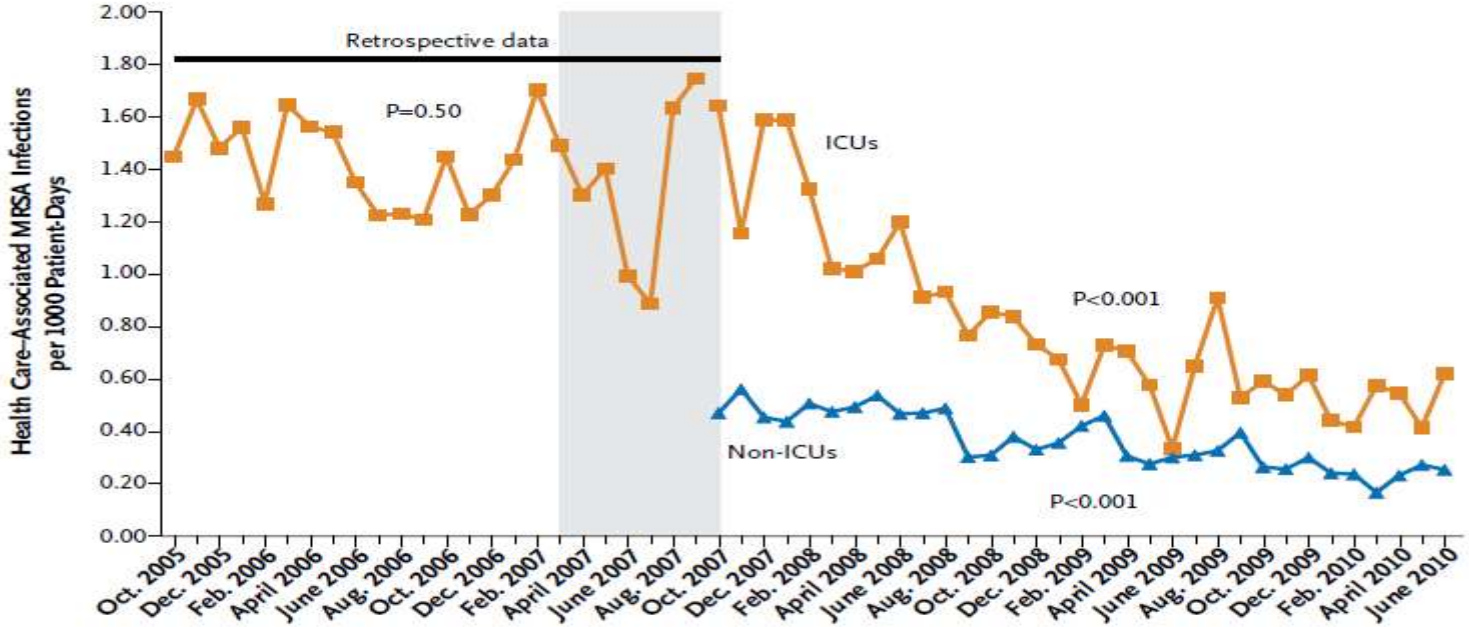

Figure 3. Nationwide Rates of Health Care–Associated Infections with Methicillin-Resistant *Staphylococcus aureus* (MRSA) in Veterans Affairs (VA) Facilities.

Between October 2007, when the MRSA bundle was fully implemented, and the end of June 2010, the rates of health care–associated MRSA infections declined by 62% in intensive care units (ICUs) and by 45% in non-ICUs. There was no significant change in the rates of health care–associated MRSA infections in the ICUs for the 2-year period (October 2005 through September 2007) before full implementation of the MRSA bundle; data for that 2-year period were not available for non-ICUs. The shaded area represents the transition period when the VA MRSA Prevention Initiative was being introduced. The analysis of trends was performed with the use of Poisson regression.

INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY JANUARY 2010, VOL. 31, NO. 1

ORIGINAL ARTICLE

Positive Deviance: A New Strategy for Improving Hand Hygiene Compliance

Alexandre R. Marra, MD; Luciana Reis Guastelli, RN; Carla Manuela Pereira de Araújo, RN; Jorge L. Saraiva dos Santos, RN; Luiz Carlos R. Lamblet, RN; Moacyr Silva Jr, MD; Gisele de Lima, PharmD; Ruy Guilherme Rodrigues Cal, MD; Ângela Tavares Paes, PhD; Miguel Cendoroglo Neto, MD; Luciana Barbosa, PharmD; Michael B. Edmond, MD, MPH, MPA; Oscar Fernando Pavão dos Santos, MD

AJIC major articles

Positive deviance: A program for sustained improvement in hand hygiene compliance

Alexandre R. Marra, MD,[a] Luciana Reis Guastelli, RN,[a] Carla Manuela Pereira de Araújo, RN,[a] Jorge L. Saraiva dos Santos, RN,[a] Miguel Almeida O. Filho, RN,[a] Claudia Vallone Silva, RN,[b] Julia Yaeko Kawagoe, RN,[b] Miguel Cendoroglo Neto, MD,[c] Oscar Fernando Pavão dos Santos, MD,[a] and Michael B. Edmond, MD, MPH, MPA,[d] São Paulo, Brazil, and Richmond, Virginia

Contents lists available at ScienceDirect

American Journal of Infection Control

journal homepage: www.ajicjournal.org

Major article

A multicenter study using positive deviance for improving hand hygiene compliance

Alexandre R. Marra MD[a,b,*], Danilo Teixeira Noritomi MD[c], Adilson J. Westheimer Cavalcante MD[d], Thiago Zinsly Sampaio Camargo MD[a], Renata Puzzo Bortoleto MD[e], Marcelino Souza Durao Junior MD[a,b], Anucha Apisarnthanarak MD[f], Claudia Laselva MD[a], Walace de Souza Pimentel MD[a,b], Leonardo Jose Rolim Ferraz MD[a,g], Maria Fátima dos Santos Cardoso RN[a], Elivane da Silva Victor PhD[a], Oscar Fernando Pavão dos Santos MD[a,b], Miguel Cendoroglo Neto MD[a,b], Michael B. Edmond MD, MPH, MPA[h], and the Positive Deviance For Hand Hygiene Study Group†

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What methods are used to apply positive deviance within healthcare organisations? A systematic review

Ruth Baxter,[1,2] Natalie Taylor,[2,3] Ian Kellar,[1,2] Rebecca Lawton[1,2]

Table 2 Key characteristics of positive deviance applications within healthcare organisations

Author and year	Location	Healthcare setting	Problem or issue addressed	Stages addressed:* 1	2	3	4
Primary care							
Bradley et al 2012[20]	Ethiopia, four regions	Primary healthcare units	Quality, access and usage of primary healthcare in rural, low-income settings	Y	Y	N	N
Gaddey et al 2011[21]	USA, Pennsylvania	Primary Care Medical Homes	Variation in diabetes care across medical home practices	Y	Y	N	N
Tallard et al 2013[22]	USA, Pennsylvania	Primary Care Medical Homes	Variation in the definition and implementation of care manager roles	Y	Y	N	N
Kim et al 2008[23]	Indonesia, East Java	Public clinics	Nurse-patient communication within a family planning context	Y	Y	N	N
Kraschnewski et al 2013[24]	USA, national	Primary care providers	The provision of advice to obese and overweight adults on weight loss/setting weight-loss goals	Y	Y	N	N
Ma and Magnus 2012[25]	USA, Los Angeles	Community public health	Black mothers and women with low education or socioeconomic status have lower initiation of breastfeeding	Y	Y	N	N
Marsh et al 2002[26]	Pakistan, Haripur	Primary care	Infant mortality ratio	Y	Y	N	Y
Ross et al 2011[27]	USA, national	VHACs—primary care	Substantial variation in anticoagulation control	Y	Y	N	N
Secondary care							
Kinsharnson et al 2011[28]	USA, Indiana	Cancer care organisations	Clinical practice to manage psychosocial distress in patients with cancer	N	Y	N	N
Kinsharnson et al 2011[12]	USA, Indiana	Cancer care organisations	Clinical practice to manage psychosocial distress in patients with cancer	N	Y	N	N
Arcand et al 2011[29]	Inferred as Canada	Inferred as acute hospital	Unsatisfactory plastic surgery journal clubs	N	Y	Y	N
Curry et al 2011[30]	USA, national	Acute hospitals	Variation in 30 days risk standardised mortality ratio (RSMR) for patients with acute myocardial infarction (AMI)	Y	Y	N	N
Chetlin et al 2012[31]	USA, national	Acute hospitals	Variation in 30 days RSMR for patients with AMI. One-third of deaths contributing to RSMR occur after discharge	Y	Y	N	N
Bradley et al 2012[32]	USA, national	Acute hospitals	Variation in 30 days RSMR for patients with AMI	N	N	Y	N
Landman et al 2014[33]	USA, national	Acute hospitals and emergency services	Collaboration between hospital and emergency services to reduce variability in RSMR for patients with AMI	N	Y	N	N
Griffith et al 2013[34]	USA, national	Healthcare organisations	Use of knowledge management within healthcare practices	Y	Y	N	N
Kennedy et al 1999[35]	USA, Mid-West	Children developmental clinics	Infants with very low birthweight are at higher risk of clinical problems. Premature infants who grow well have better developmental outcomes	Y	Y	N	N
Lindberg and Schneider 2013[36]	USA, Maine	Medical centre (including community hospital/tertiary care)	MRSA infections	N	Y	N	Y
Lindberg et al 2013[37]	USA, New Jersey	Outpatient haemodialysis center	Blood stream infections	Y	Y	N	N
Downham et al 2012[38]	USA, New Jersey	Outpatient haemodialysis center	Blood stream infections	N	Y	N	Y
Marra et al 2010[39]	Brazil	Hospital Step Down Units	Hand hygiene compliance	Y	Y	N	N
Marra et al 2011[40]	Brazil	Hospital Step Down Units	Hand hygiene compliance	Y	Y	N	N
De Medida et al 2012[41]	Brazil, Sao Paulo	Hospital Step Down Units	Hand hygiene compliance	N	Y	N	N
Marra et al 2012[42]	Brazil and Thailand	Hospitals (1 ward, 8 intensive care units)	Hand hygiene compliance	N	N	Y	N
Zaki et al 2012[43]	Pakistan	Medical school	Student achievement in preclinical written work often does not reflect achievement in clinical work	Y	Y	Y	N

Table 2 Continued

Author and year	Location	Healthcare setting	Problem or issue addressed	Stages addressed:* 1	2	3	4
Awad et al 2009[44]	USA, Houston	1 VAMC	Incidence of MRSA surgical site infections	Y	N	Y	Y
Bessel et al 2009[45]	USA, Houston	1 VAMC	Increased incidence MRSA infection and inconsistent application of prevention methods	Y	N	Y	N
Ellingson et al 2014[46]	USA, North-East	1 VAMC	Antimicrobial (MRSA) resistance in ICU healthcare facilities	Y	Y	N	N
Evans et al 2012[47]	USA, national	VAMCs (Spinal Cord Injury Units)	Patients with spinal cord injury are at higher risk of developing healthcare-associated infections such as MRSA	Y	N	N	Y
Fendler and Richmond 2007[48]	USA—VA Pittsburgh Healthcare System	Acute, long-term and behavioural services	Reduction of healthcare-associated Staphylococcus aureus infections such as MRSA	Y	Y	N	Y
Lee et al 2011[49]	USA, national	VAMCs (intensive care/non-intensive care units)	Reduction of MRSA infections in acute care facilities	Y	N	N	Y
Regional/national level/other							
Avadhoo et al 2008[50]	Australia, New South Wales	Justice health services	Smoking cessation in prisoners	Y	N	Y	Y
Dixon et al 2009[51]	Canada, British Columbia	Vancouver Island Health Authority	Provision of recommended/evidence-based care for patients with chronic conditions	Y	Y	N	N
Klaiman et al 2013[52]	USA, nine states	Local Health Departments	Extensive local differences in public clinic vaccination processes	Y	Y	N	N
Klaiman et al 2014[53]	USA, nine states	Local Health Departments	Extensive local differences in school-based vaccination distribution	Y	Y	N	N
Nakiyili et al 2004[54]	Sub-Saharan Africa, six countries	National health departments	Substantial variation in immunisation coverage to reduce childhood mortality	Y	Y	N	N
Primary and secondary care							
Assefa et al 2014[55]	Ethiopia, national	Tertiary/general hospitals and health centres	Patient retention in antiretroviral treatment programmes	Y	N	N	N

*Stages from the Bradley et al process for positive deviance:[7] Y, yes—stage addressed; N, no—stage not addressed; ?, unclear whether stage addressed.
Rows represent included articles (n=17); Rows grouped by colour (grey or white) represent unique positive deviance projects (n=12).
MRSA, methicillin-resistant Staphylococcus aureus; VA, Veterans Affairs; VAMC, Veterans Affairs Medical Centre.

BMJ Qual Saf 2016;25:190-201

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HOW TO USE LIBERATING STRUCTURES

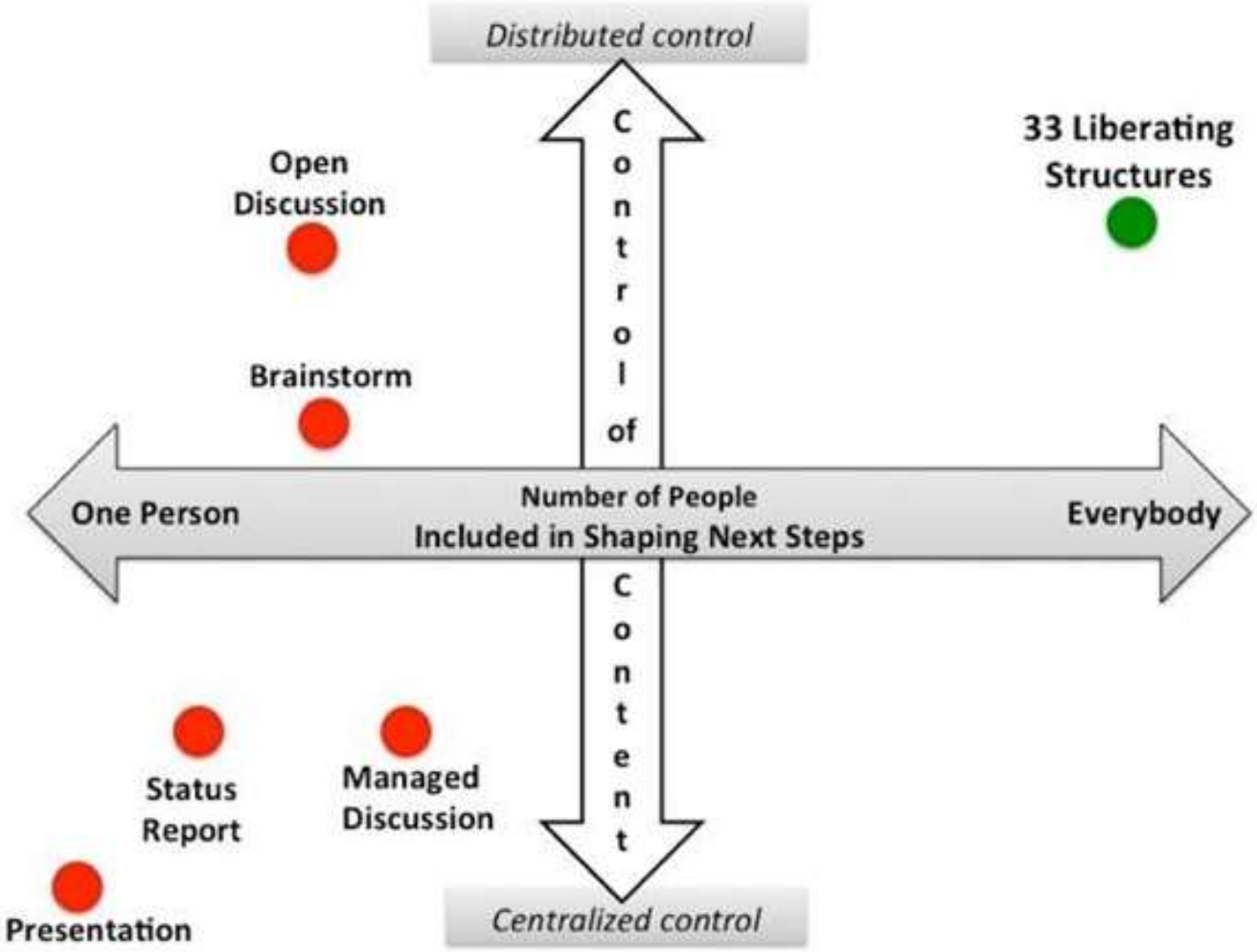
Conventional Structures *can* be…
Too Tight or Too Loose

Presentation

- Over-controlled
- Little active engagement & meaning making

Open Discussion

- Under-controlled
- Activity is random, unpredictable, may not lead to productive end points



Liberating Structures …

- Have roots in…
  - Positive Deviance
  - Complexity Theory
  - Open Movement
- Meant to be…
  - “Serious Fun”
  - Flexible
  - Purpose-full

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Principles of Liberating Structures

- Include and unleash everyone
- Practice deep respect for people and local solutions
- Build trust as you go
- Learn by failing forward
- Practice self-discovery within a group
- Amplify freedom and responsibility
- Emphasize possibilities: believe before you see
- Invite creative destruction to enable innovation
- Engage in seriously playful curiosity

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TRIZ

Stop counterproductive activities & behaviours to make space for innovation

1. Compile a list of to-do's in answer to this question:

How can we ensure that every patient/client in our health care setting acquires MRSA?

- Go wild!

2.

3.

TRIZ Steps

Stop counterproductive activities & behaviours to make space for innovation

1. Compile a list of to-do's in answer to:

How can we ensure…

- Go wild!

2. Go down your list and ask:

Is there anything we are doing that resembles - *in any shape or form* - the things on our list?

Be unforgiving!

3.

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TRIZ Steps

Stop counterproductive activities & behaviours to make space for innovation

1. Compile a list of to-do's in answer to:

How can I/we ensure…

- Go wild!

2. Go down your list and ask:

Is there anything we are doing that resembles in any shape or form to-do's on our list?

3. Compile the list of what needs to be stopped.

- ❑ Take one item at a time & ask:

  How am I and how are we going to STOP it? What is your first move?

- ❑ Be as concrete as you can
- ❑ Select <u>one idea</u> and prepare to <u>share</u> with the larger group.

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Discovery & Action Dialogue

1. How do you know or recognize when patients, families, and visitors are not cleaning their hands?
2. How do YOU contribute effectively to solving the problem?
3. What prevents you from doing this or taking these actions all the time?
4. Is there anyone you know who is able to frequently? How?
5. Do you have any ideas?
6. What needs to be done to make it happen? Any volunteers?
7. Who else needs to be involved?

Lipmanowicz & McCandless, 2010

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Facilitating DADs

- Do not answer questions that have not been asked directly to you; give questions back to the group
- Wait at least 20 seconds for a reply
- Encourage all people to talk
- Do not respond positively or negatively to suggestions – let the group decide
- Allow the dialogue to be non-linear
- Remember that the group has solutions, not you

Lipmanowicz & McCandless, 2010

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What, So What, Now What? (W^3)

Together, look back on progress and decide what adjustments are needed

Reflect on the outbreak we have just experienced...

- **WHAT?**
  - What facts, data, & observations stand out about this outbreak?
- **SO WHAT?**
  - How do you explain those facts? Assumptions? Patterns and themes? What is important?
- **NOW WHAT?**
  - What action may help you move forward? What impact do you expect on teaching and learning? What will you do next with this?

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1-2-4-All

Engage Everyone Simultaneously in Generating Questions, Ideas, and Suggestions

Invitation:
What opportunities do you see for using LS to disrupt conventional structures in your context?

1-2-4-All in motion. Multiple short cycles are more productive than one longer session.

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1-2-4-All

Engage Everyone Simultaneously in Generating Questions, Ideas, and Suggestions

What opportunities do you see for using LS to disrupt conventional structures in your context?

- 1 minute alone
- 2 minutes in pairs
- 4 minutes as a group
- All – hear from everyone

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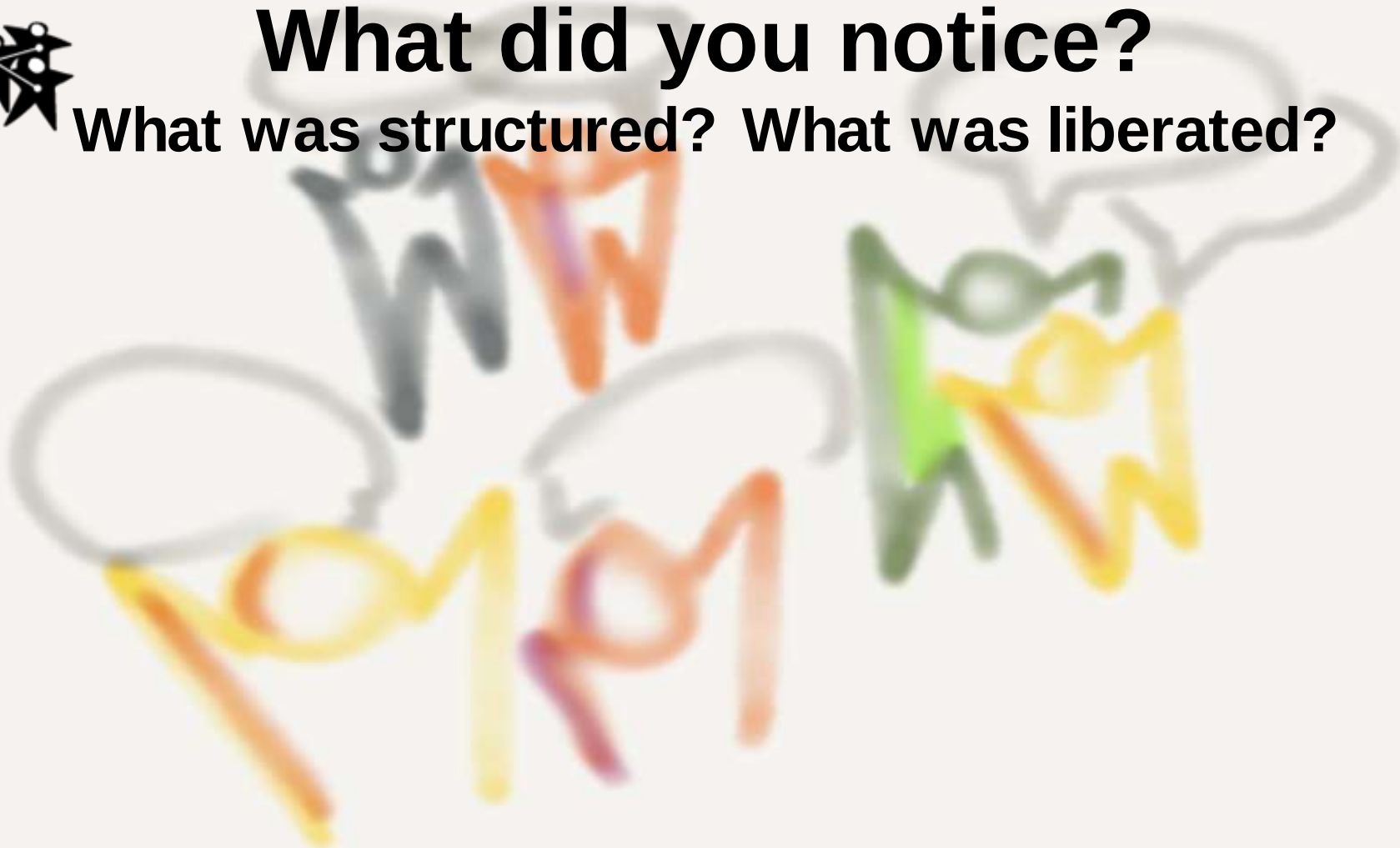
What did you notice?

What was structured? What was liberated?



15% Solution

Discover and focus on what each person has the freedom and resources to do now

- "What do you have discretion and freedom to do without more resources or authority?"

- 1 - individually generate a list. (5 min)
- 2 - share your 15% with a partner or small group. 1 -2 min. per person
- 4 - one person at a time (5 min)
- (If time allows group members can offer advice)

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LS Menu	Wicked questions	What³ debrief	Min specs	Heard, seen respected	What I need from you	Integrated autonomy
Design elements	Appreciative interviews	Discovery and action dialog	Improv prototyping	Drawing together	Open space	Critical uncertainties
1-2-4-All	TRIZ	Shift & share	Helping heuristics	Design storyboards	Generative relationships	Ecocycle
Impromptu networking	15% solutions	25 : 10 crowdsourcing	Conversation café	Celebrity interview	Agree/certainty matrix	Panarchy
9-whys	Troika consulting	Wise crowds	User experience fishbowl	Social network webbing	Simple ethnography	Purpose to practice

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CONCLUSIONS

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Learning Objectives

- To learn about Liberating Structures (LS) as a way of engaging team members and stakeholders in productive, purposeful, inclusive ways
  - Theoretical basis and supporting evidence
- To experience LS first hand and learn how they can be used in your daily work

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Key Messages

- Culture eats strategy for breakfast
- FLO offers a promising new approach to IPAC challenges
- Liberating structures are an inexpensive and effective way to engage front-line staff and improve patient outcomes

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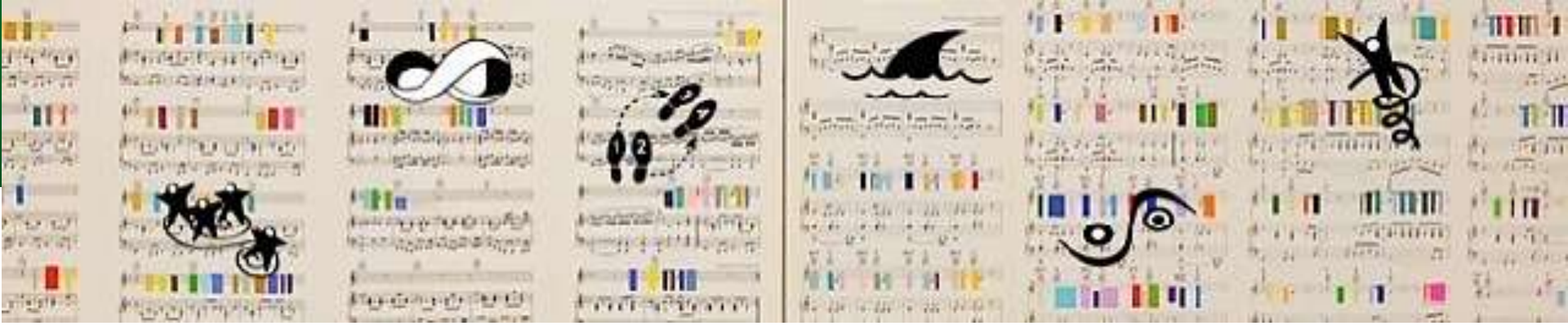
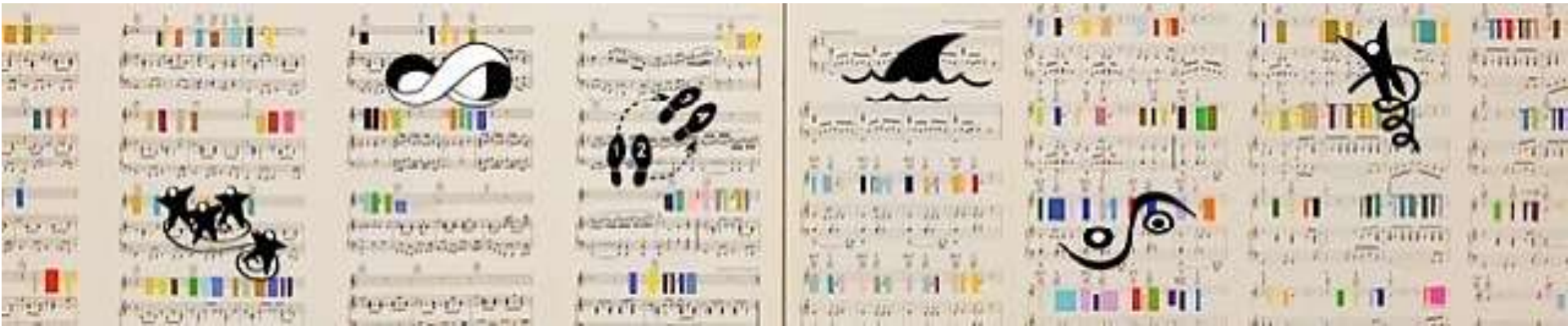


Reach out to LS users: Field stories and challenges are being shared in real-time on the LinkedIn group and Facebook group. There are 24+ public LS user groups across North America, London and Paris. For more information go to liberatingstructures.com

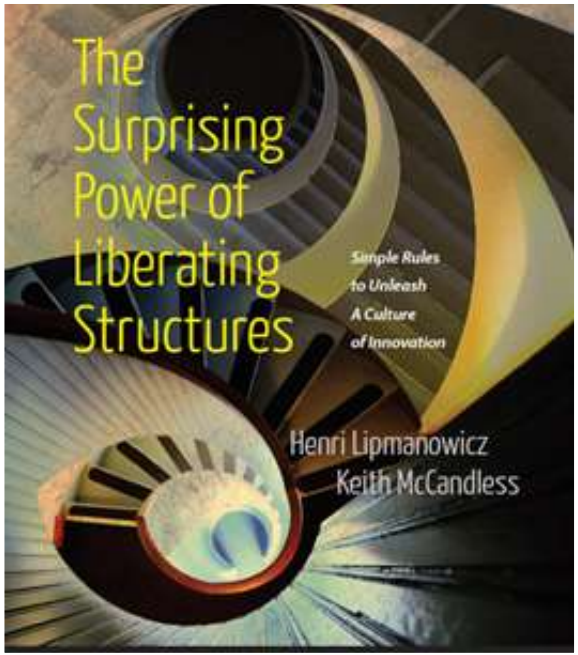


Resources

https://vancouverliberatingstructuresusergroup.wordpress.com/

Twitter: @VancouverLSUG
Facebook: VLSUG FB Page

LinkedIn Group
Slack Group (Seattle leaders)
LS App (Google Play or Apple Store)



Acknowledgements

- Some slides courtesy of Barish Golland and Leva Lee of the Vancouver Liberating Structures Users Group (vancouverliberatingstructuresusergroup.wordpress.com/)

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QUESTIONS

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