Transforming Messy Data: Tough Decisions, A New Vision, and Effective Processes

April 10, 2019

(Messy Data, Visual Scaling, and Effective Processes)

Twitter - #messydata

WELCOME (R)

Institutions collect data on students through a variety of strategies, for a variety of needs. We over collect data, seldom taking the time to consider programmatic implications. Educators need multiple supports to assist them in revisiting the purpose of assessment and evaluation through quality assurance processes.

WELCOME (R)

There are many tough questions & difficult decisions to be made. The answers to these require a cohesive and collaborative approach to create actionable information related to accreditation and quality assurance systems. This session explores tools and strategies to clean up #messydata to transform processes that guide organizations as they create and implement effective structures.

Overview (R)

- What is "Messy Data"? (5 min)
- How do You Know if Your Data is Messy? (15 min)
- IER Reflection for Action (overview 7 min, importance 8)
- PIG and Knowledge Management (10 min)
- Ways to Fix Messy Data (10 minutes)
- Questions (5 mins)

PRESENTERS (R & M)

- Dr. Ray Francis
- franc1rw@cmich.edu
- Tenured Graduate Faculty
- Department of Teacher Education and Professional Development
- Long history in assessment, evaluation, and accreditation (NCATE, TEAC, CAEP, AAQEP).

- Dr. Mark Deschaine
- Tenured Graduate Faculty
- Department of Educational Leadership
- Member of Department and University Assessment and Academic Senate Committees

This is about your students!

This is about your program!

This is about you!

WHAT ARE YOUR TOUGH QUESTIONS? (M)

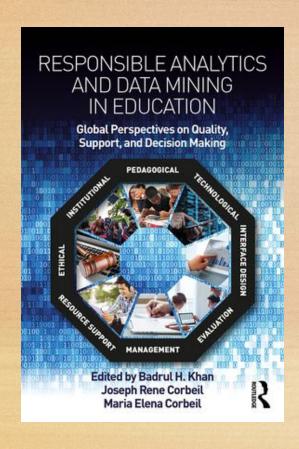
We are all working with assessment, evaluation, and accreditation issues. And we are all facing tough questions in our programs.

What are YOUR tough questions???

Tough Questions, Difficult Decisions (M)

- Compliance or Improvement
- Standards
- Leadership and Structure
- Sensemaking
- Voice, Agency and Action
- Whose story is being told?
- How much is too much? How little is too little?

Resources to Consider (M)





New Book Information

The Contemporary Superintendent: (R)Evolutionary Leadership in an Era of Reform

Editors: Meredith Mountford, Florida Atlantic University and Leigh E. Wallace, University of Wisconsin-Milwaukee

A volume in Research on the Superintendency Series Editors: Meredith Mountford, Florida Atlantic University and Leigh E. Wallace, University of Wisconsin-Milwaukee

What is (R)Evolutionary Leadership? Why Does it Matter?

How can contemporary school district administrators, specifically superintendents, contend with so many difficult, and almost impossible competing commitment? Building on the definitions of revolution, revolution, and evolutionary, the contion of (RijeChulonary Laderbule) menerged while discussing the need for solid district leaders to put head against the status quo writing importing tracher and leadership practices; improving student learning outcomes, engaging with the community, and ensuring decision making processes that include check and balance systems that are just, fair, and equitable for all.

The chapters in this book introduce superintendents or research on superintendents in which these tenants were practiced, both in their ability to exact radical change by "overthrowing" the status quo – as well as evolutionary in their eliberate approach to viewing change as process they on control over time. These leaders were willing to confront and dely practices and policies that were counter to student well-being and achievement while concurrently knowing how to reach their desired results. The chapters choose in fundation in this violence are those after the production are the control of their design of these revolutionary tenants in practice.

We ask that you consider this emerging concept as you explore the chapters of our book. You will find the (R)evolutionary Leaders you meet in the chapters know how to evolve, not just to stay alive, but to ensure the organization (school) remains relevant and vital to just to stay alive, but to ensure the organization (chool) remains relevant and vital to-society. These leaders use their positional power, social capital, and expertise to advocate for policies and practices that are in the best interest of the school community and they immorate in ways that challenge the status quo. To wail also find practices that are (IQI) coluntarary and provide ways for headers to immorate, collaborates, and simply take care (IQI) coluntarary leaders ways for headers to immorate, collaborates, and simply take care delineats the characteristics of a GBP/outlinosary leader or how one might enact (IQI) coluntionary leadership—but serves at a way to [repliatin the way we view the vastly complex work of school district administrators, specifically the supportinged (IQI) coluntarity leadership may change our ways of thinking about the significant advocacy lea a superintendent can play in influencing both practice and policy to enach the change necessary to move forward issues of justice, equity, and quality in Wi-12 schools and further to improve electronical and zocial coluterons for those servers.

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IAP- Information Age Publishing, Inc. PO BOX 79049 Charlotte, NC 28271 Phone: 704-752-9125 Fax: 704-752-9113 www.infoagepub.com

What are your tough questions/ problems – Column A

(R)

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WHAT ARE THE MESSY DATA AROUND THESE DECISIONS? (R)



What are the MESSY
DATA you are working with - B & D

(R)

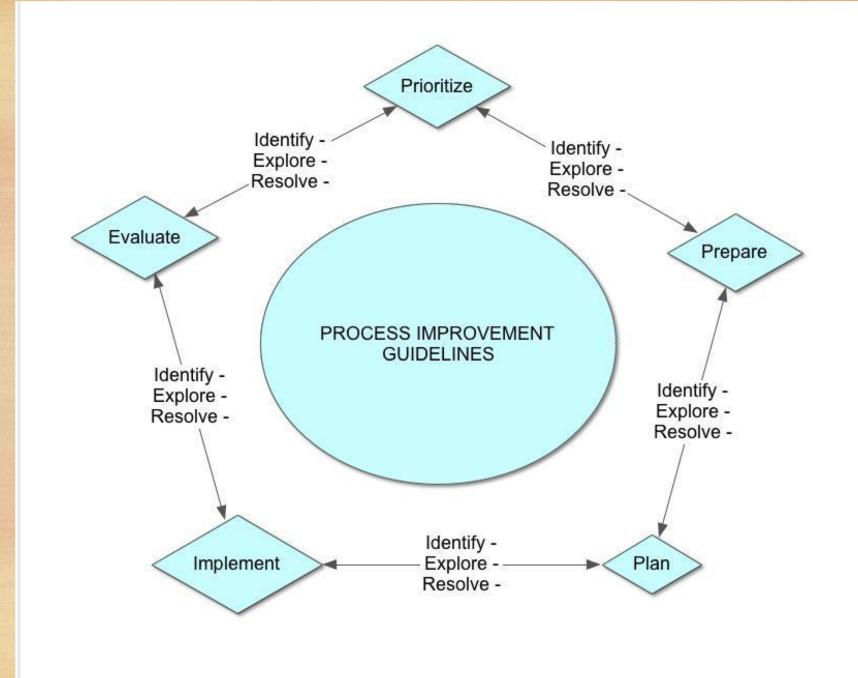
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Professional Judgement, Reflection & Action

I – Identify

E – Explore

R - Resolve



IER (Identify/Explore/Resolve) Process

Promoting Learning Linough the IER Model of Reflection the IER mactices in the area of metacognition is that are

One of the most effective practices in the area of metacognition is that of Reflective Practice. Reflective Practice, or Reflection, as it is commonly referred, has been on the Practice. Reflective Practice. Authors have included reflective processes loyed or many purposes in recent literature. Authors have included reflective processes loyed or many purposes in recent literature. Authors have included reflective processes loyed or many purposes in recent literature. Authors have included reflective processes loyed or many purposes in recent literature. Authors have included reflective processes loyed or many purposes in recent literature. Authors have included reflective processes loyed or many purposes in recent literature. Authors have included reflective processes loyed or many purposes in recent literature. Authors have included reflective processes loyed or many purposes in recent literature. Authors have included reflective processes loyed or many purposes in recent literature. Authors have included reflective processes loyed or many purposes in recent literature. Authors have included reflective processes loyed or many purposes in recent literature. Authors have included reflective processes loyed or many purposes in recent literature. Authors have included reflective processes loyed or many purposes in recent literature. Authors have included reflective processes loyed or many purposes in recent literature. Authors have included reflective processes loyed or many purposes in recent literature. Authors have included reflective processes loyed or many purposes in recent literature. Authors have included reflective processes loyed or many purposes in recent literature. Authors have included reflective processes loyed or many purposes in recent literature. Authors have included reflective processes loyed or many purposes in recent literature. Authors have included reflective processes loyed or many purposes in recent literature. Authors have included reflective processes loyed in the reflection in research

Several authors have indicated that reflection can be used by individuals to or experiences and build knowledge. Through reflection individuals engage in tunities to examine experiences for the purpose of making future decisions in mett (1989) refers to as situational knowledge. The definition currently being situational knowledge, adapted from Grimmett's, is: the knowledge a profess sesses which may be employed n professional practice to make informed decisions.

- IER (Identify/Explore/Resolve)
 Process -
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WHY IS YOUR DATA MESSY? (M)

- Qualitative vs Quantitative
- Demographic Trends vs Demographic Labels
- Forward Indicator vs Lagging Indicator
- Standardized vs Localized
- Locus of Control (Internal vs External)
- Rigorous vs "Low Hanging Fruit"
- Professional vs Individual
- Your data is not binary ... Is it complimentary

WHAT PROCESSES DO YOU HAVE / UTILIZE TO DEAL WITH YOUR TOUGH DECISIONS AND #MESSYDATA?

Visual Scaling

https://centralmichigan-my.sharepoint.com/personal/franc1rw_cmich_edu/Documents/Research/Visual%20Scaling%20Research/ERIC%20info%20ATE%20VS%20Francis%20Deschaine%202018.pdf?CT=1550321044054&OR=DocLib

Your submission with confirmation ID 921c13be3c9745d3864d9bf5e2a26fd7 has been received.

An email confirming your submission details has been sent to <franc1rw@cmich.edu>

Title

Comparing Apples to Oranges: using academic scaling for meaningful assessment and evaluation

Author 1 Raymond W Francis

Author 2 Mark E Deschaine

One of the largest challenges in educator preparation in higher education is the effective

• STLHE - SAPES



The Visual Scaling (VS) Process (M)

• Establishing a quantitative strategy for comparing data that are often times qualitative, subjective, or performance based in nature.

The Visual Scaling (VS) Process (R)

- Setting the zero-base. Yes, zero is a good thing.
- Set the performance ranges (-3, -2, -1, 0, 1, 2, 3) no more than that.
- Collect, process, score, analyze your data

A sample scale (R)

$$\bullet$$
 +3 = 98 - 100

$$+2 = 95 - 97$$

$$+1 = 87 - 94$$

•
$$0 \text{ Zero-base} = 64 - 86$$

$$-1 = 48 - 63$$

$$-2 = 18 - 47$$

$$-3 = 0 - 17$$

Not equal across the ranges

• Not linear

• Irregular based on professional knowledge, etc.

Sample of 4 Administrations Data for Heterogeneous Group over Time (R)

	Admin 1	Admin 2	Admin 3	Admin 4
Group A	68	74	83	88
Group B	69	77	77	85
Group C	68	61	77	86
Group D	68	77	88	90
Overall	68.25	72.25	81.25	87.25

VS Results for 4 administration of Data for Heterogeneous Group over time (R)

	Admin 1	Admin 2	Admin 3	Admin 4
Group A	0	0	0	0
Group B	0	0	0	0
Group C	0	-1	0	0
Group D	0	0	+1	+1
Overall	0	0	0	+1

WHAT POCESSES DO YOU HAVE / UTILIZE to DEAL WITH YOUR TOUGH **DECISIONS** AND MESSY DATA? - A & E

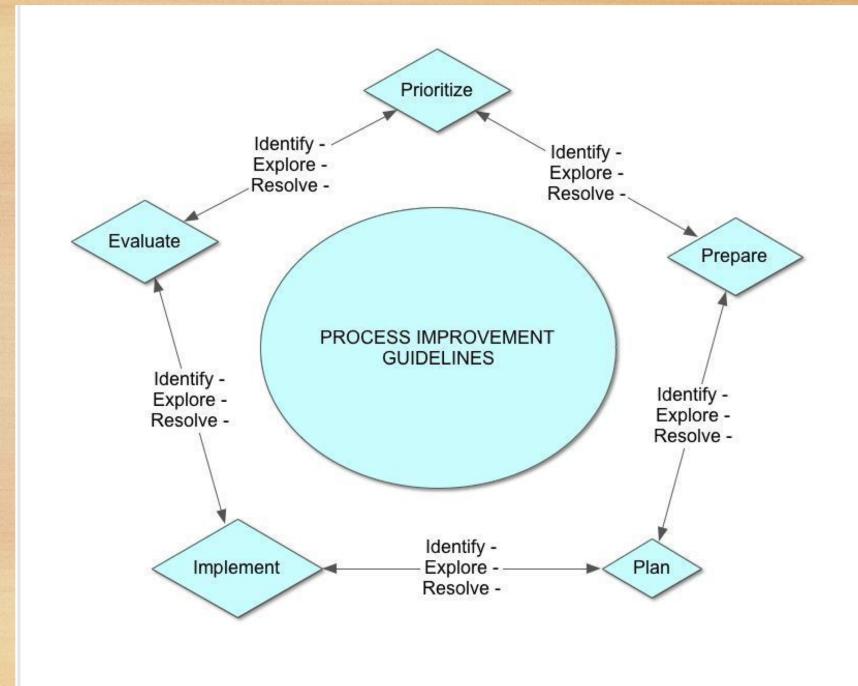
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(R)

PIG

Process
Improvement
Guidelines

Plan
Prepare
Prioritize
Evaluate
Implement



Some available resources

https://docs.google.com/document/d/1JTa791HYqJ7KaCSncv3kNPJ389k UdadVVSzhquGRFhs/edit?usp=sharing

QUESTIONS???

Twitter - #messydata