PROSPEROUS METRICS

Solving the Scenarios
We Struggle to Measure
“So, about those agile metrics I asked from you...”
A framework for “Prosperous Metrics”

**Success Metric**

**Improvement Metrics**

To Test:
- What decision?
- When no longer useful?

- Systems
  - Focused
- Likely
  - need just one
- Long-term

“Measure Up”
Scenario One

“How can we show people are more productive?”
Productivity is a qualitative trap…

“To make knowledge work productive will be the great management task of this century.”
Any measure we use in the name of productivity must be a proxy to what really matters: effectiveness.
Measuring Successful Effectiveness

LEAD TIME

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@JasonKerney
Measuring Improved Effectiveness

Where is the delay?

How much delay (cost)?

What is arrival rate impact?

What conditions?

When the constraint changes.

Lead Time = Cycle time * WIP (Little’s Law)
Are we going too fast?

Is this sustainable?

What is “normal” state?

What conditions?

Until it’s no longer useful. E.g., fix in next working hour
Do we have a closed loop?

Are we playing sprint Tetris?

What’s our system really?

What conditions?

Until it’s no longer useful. The value is in the picture...
Fixed date, Fixed scope: Ø Ø Ø Ø Ø Ø Ø Ø 1
Need help slicing: Ø Ø 1 Ø Ø 1 Ø Ø 1
Let's chat with PM/PO: Ø 0 Ø 1 0 0 0 Ø Ø 1
Winning: 1 1 1 1 1 1 1 1 1 1 1 1
“Get closer than ever to your customers. So close that you tell them what they need well before they realize it themselves.”

Steve Jobs

“It is not the employer who pays the wages. Employers only handle the money. It is the customer who pays the wages.”

Henry Ford

Customer collaboration over contract negotiation

Agile Manifesto (2001)

"The aim of marketing is to know and understand the customer so well the product or service fits him and sells itself."

Peter Drucker
Any measure we use in the name of productivity must be a proxy to what really matters: **effectiveness.**
CUSTOMER LOYALTY
Measuring Improved Effectiveness

Feature Engagement

- How do we simplify UX?
- What’s hard to find today?
- How innovative are we?

What conditions?
When feature releases are no longer surprising.

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Measuring Improved Effectiveness

Referrals per (time)

Feature pivot?
Invest more in “illities”?
How is our mkt research?

What conditions?
When we believe we have captured available mkt space
Effectiveness > Productivity

Keys to effectiveness:

What is our delivery rate?

How are we impacting our customers?

Productivity is a qualitative trap!
“How do I know quality is improving?”
Deming’s 14 Points for Total Quality Management

3. Cease dependence on inspection to achieve quality.

In other-words build quality in.
Measuring Successful Quality

FIRST TIME YIELD

\[
\frac{[\text{Units Produced}]}{[\text{Units Produced}]} - \frac{[\text{Units Defective}]}{[\text{Units Produced}]} = \text{FTYall}
\]

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FTYa * FTYb * ... * FTYn = FTYall
Measuring Improved Quality

% Code Coverage

- What is cost of “hardening?”
- Are we reducing tech risk?
- What can’t be automated?

What conditions?
When adding coverage outweighs the benefit.
Measuring Improved Quality

Code Collaboration

What conditions?
When (at least) pairing is common.

- How long for new hires?
- How siloed is knowledge?
- Time spent in code review?
Hard on systems.
Soft on people.
Quality is rich in qualitative info.

Your story reveals quantitative needs.
Is this sustainable (cost)?

What does the trend tell us?

What needs to change?

What conditions?

Team tells us they have time/space needed to maintain.
Measuring Improved Quality

The “Risk Box”

What is our tech risk?

Are teams identifying risk?

What does the trend tell us?

What conditions?

The box disappears! Or, teams no longer need it.

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"Quality"

First Time Yield is a systemic success metric!

Influencers of FTY:

- Codebase metrics, especially re: tests.
- How people see quality, especially customers and teams.

“Hard on systems!”

“Soft on people!”

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Scenario Three

“How can I see if transformation is happening?”
It will be better.

It will be different.

Change

Transform

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The key to “measuring” transformation is seeing the difference.
USE A PICTURE

HOW?!
Transformation Sliders

Structure A

Individual performance measured annually

Where are we?

Structure B

Monthly, team-centric feedback and goals

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Measuring **Improved** Transformation

- Shared understanding?
- Where is attention needed?
- What experiment to run?

**Perspective Mapping**

**What conditions?**

When alignment exists across the system.

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MUST BE QUANTITATIVE
Zach’s Experimental Environment Metric

\[
\frac{\#ppl(\#ppl - 1)}{2} \div \frac{\#teams}{1 + \text{Depend.}}
\]

Avg Rel Items

\[
\frac{\text{# Rel Items Done}}{\text{# Rel Items Done}}
\]

Median Safety

(a # from 1 to 5)

\(\leq 150\)

(Dunbar’s Number)
HBR: Being Happy at Work Matters

... Happy people are better workers. Those who are engaged with their jobs and colleagues work harder — and smarter....
Software development is not a rational process. It's a process made by people with feelings with bodies and with thinking. And by putting all those together I can be a more effective software developer.

- Kent Beck
Measuring Successful Transformation

EMPLOYEE HAPPINESS

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Measuring Improved Transformation

Retro Frequency

- Are people bored?
- Need facilitation help?
- How aware is the system?

What conditions?

When people demonstrate behavior over process.
Measuring Improved Transformation

End of Day Happiness

What is our culture?

How motivated to improve?

Is purpose understood?

What conditions?

When happiness is satisfactory and consistent.

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@JasonKerney
A quantitative transformation metric is unlikely to fit multiple contexts.

Visual methods encourage shared understanding.

Measure behavior over process outcomes!
Contact Us!

zbonaker@gmail.com  jason@teamkerney.com

@zachbonaker  @JasonKerney

agileoutloud.wordpress.com  jason.teamkerney.com