



40+ Metrics for Software Teams

The following listing is intended as a starting point for conversation and discussion. Choose one or two that make sense for your team / organization and add them to your current dashboard. Then rinse and repeat over time.

People/Team: Human Elements

This group of metrics reveals issues that impact a team's sustainable place and level of engagement.

- › Team Happiness / Morale / Mood
- › Gallop Q12
- › Team / Manager / Organization NPS
- › Percentage of time w/o interruptions
- › Trust between Leadership and Team
- › Learning Log
- › Team Tenure
- › Phone-a-Friend Stats
- › Whole Team Contribution
- › Transparency (access to data, access to customers, sharing of learning, successes and failures)
- › Comparative Agility: Team mapping against the 12 agile principles (Geoff Watt's "Scrum Mastery")

Process Health Metrics

This category assess day-to-day delivery team activities and evaluates process changes.

- › Cumulative Flow Diagrams
- › Control Charts
- › Cycle Time
- › Percent Complete and Accurate
- › Time Blocked per Work Item
- › Story/Epic Lead Time
- › Successful Iteration Completion
- › Escaped Defect Resolution Time

Release Metrics

This group directs focus on identifying impediments to continuous delivery.

- › Escaped Defects
- › Release Success Rate
- › Release Time
- › Time Since Last Release
- › Cost Per Release
- › Release Net Promoter Score
- › Release Adoption / Install Rate

Product Development Metrics

These help measure alignment of product features to user needs.

- › Customer / Business Value Delivered
- › Risk Burndown
- › Value Stream Mapping
- › Sales Velocity
- › Product Forecast
- › Product Net Promoter Score (NPS)
- › User Analytics

Technical/Code Metrics

The following help determine quality of implementation and architecture.

- › Test Coverage
- › Unit/Regression Test Coverage
- › Build Time
- › Defect Density
- › Code Churn
- › Code Ownership
- › Code Complexity
- › Coding Standards Adherence
- › Crash Rate
- › Build Breaks
- › Technical Debt
- › Ratio of Fixing Work vs Feature Work

Andy Cleff

Andy is an experienced and pragmatic agile practitioner that takes teams beyond getting agile to embracing agile. His chief weapons are well asked questions, insightful retrospectives and an ability to withstand awkward silences. And if all else fails, beer.

- ✉ andycleff@icloud.com
- 🌐 andycleff.com
- 🌐 [linkedin.com/in/andycleff](https://www.linkedin.com/in/andycleff)
- 🐦 [@JustSitThere](https://twitter.com/JustSitThere)
- 🌐 agileuprising.com





12 Rules for Measurement

Rule 1: Measure for a purpose

You must always understand why you are measuring. The metric is not a goal in itself. Never forget that it's just a means to an end. It all starts with why.

Rule 2: Shrink the unknown

A metric is just a surrogate for what you really want to know. Don't jump to conclusions. Always try to reduce the size of what is still unknown.

Rule 3: Seek to improve

Don't only measure things that will make you look good. There is plenty of data around, but you must focus on what enables you to do better work.

Rule 4: Delight all stakeholders

Your work depends on others, and others depend on you. Never optimize for just one stakeholder. Instead, measure your work from multiple perspectives.

Rule 5: Distrust all numbers

Observers usually influence their own metrics, and they suffer from all kinds of biases. Have a healthy, skeptical attitude towards any reported numbers.

Rule 6: Set imprecise targets

When people have targets, they have an inclination to focus on the targets instead of the real purpose. Avoid this tendency by keeping your targets vague.

When selecting metrics, ask:

- › Why "this metric?" – Why does it matter? Who does it matter to?
- › What insights might we gain from it?
- › What is expected to change? What is the expected variability and consistency – are we looking for trends or absolute values?
- › How might it be gamed, misused (or abused)?
- › What are some for trade offs / costs of improvement?
- › How often would we like to "take a data point"?
- › How long will we run the experiment? (What is the half-life?)

Rule 7: Own your metrics

Everyone is responsible for their own work, and metrics help us improve that work. Therefore, everyone should be responsible for their own metrics.

Rule 8: Don't connect metrics to rewards

Rewards often kill intrinsic motivation and lead to dysfunctional behaviors in organizations. Don't incentivize people to do work they should like doing.

Rule 9: Promote values and transparency

Human beings are smart and able to game any system. To prevent gaming, be transparent about values, intentions, and the metrics everyone is using.

Rule 10: Visualize and humanize

Numbers tend to dehumanize everything. Replace digits with colors and pictures, and keep the measurements close to where the actual work is done.

Rule 11: Measure early and often

Most people don't measure often enough. Measure sooner and faster to prevent risks and problems from growing too big for you to handle.

Rule 12: Try something else

It's rarely a good idea to do the same things over and over. The environment changes all the time. The same should apply to how and what you measure.

- › How when we know when we're "done" with this metric?
- › Are we adding to the dashboard or replacin/retiring something else?
- › How will we make our measurements transparent – to promote knowledge sharing, collaboration with other teams and trust with our sponsors?
- › Is this metric a leading or lagging indicator?

MANAGEMENT 3.0

CHANGE AND INNOVATION PRACTICES

