

CREATING MEASURES OF SUCCESS FOR YOUR PLAN



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What are Measures of Success?

Most administrative units and academic departments have goals of some kind. Often missing in these goals are the measures of success. What will tell us that we accomplished these goals and that it made any difference? Measures of success are the criteria that we believe show the impact of our work. The measures may be quantifiable or qualitative, but they are observable in some way.

Without data on what is being accomplished by our deliberate actions, we have little or no foundation for decision-making or improvement. Without data, anyone's opinion is as good as anyone else's. "Common knowledge" is notoriously unreliable for decision-making.

Measures of success should tell us the following about whether our goals:

- achieved the results we expected
- produced results we didn't want or expect
- should be changed
- should continue (or not)
- should be measured in other ways

The measures themselves should reflect the purpose, mission, and hopes of the unit or department.

A strategic plan needs measures of success. Without knowing in advance what "success" looks like, it is very difficult to implement any plan. Some plans have measures of success for the whole plan as well as for individual goals within the plan.

Ideally all processes in the University should have identified measures of success. (Note that a process is a series of actions aimed at producing something—information, a service, a decision, a product. It is not difficult to see that the work of the university depends on many processes.)

The figures in this document contain many examples of measures of success for various campus processes and functions. For example, an administrative unit may identify reduced errors as a measure of success. An academic department may have high student retention or satisfactory progress as a measure of success for graduate students.

Functions of Measures of Success

Establishing measures of success is hypothesis testing. We think that if we do A, then B will happen. We assume there is a cause-and-effect relationship.

Establishing measures and then comparing what happened to what you thought would happen is a reality-check on your hypothesis. The resulting data can beg the question, "If this isn't working like we thought it would, how should we change it, or should we even continue?"

Measures provide feedback for what "*Balanced Scorecard*" authors, Kaplan and Norton (1996) call double-loop learning. They say that double-loop learning occurs when managers question their own assumptions and reflect on whether their underlying theory is consistent with current evidence and observations. They say that managers first need single-loop learning—feedback about whether the plan is being implemented as originally conceived. "But even more important, they need feedback about whether the planned strategy remains viable. This is double-loop learning." Managers need information so they can question whether the fundamental assumptions made when they launched the strategy are valid" (p. 17).

Identifying measures of success creates a common language. The act of identifying measures of success and collecting the data creates a common language and set of shared expectations within a working group. When committees, groups, teams begin talking in concrete, measurable terms about success, it becomes very quickly apparent whether or not people are thinking in the same terms.

Why Measurement Systems Fail

Figure 1 includes a list of possible reasons why measurement systems fail. These suggest that, among other things, the people who are key players in the process as well as those who use the process should be involved in (or at least seriously consulted) in developing appropriate measures of success.

Another reason measurement systems fail is that measurement is not designed into the process. Measuring success is thought of as something after-the-fact and as an add-on to the process. This view and practice makes measurement onerous and often not sufficiently timely to be useful. Instead, build feedback and measurement into the process and ensure that individuals are responsible, as part of their job descriptions, for collecting data on results and sharing it with the appropriate players.

These need not be complicated systems. For example, one university office's goal was to produce a publication that reached people's desks on or before the first day of the month. To track this, one person in the office merely wrote the date at the top of the newsletter the day it was received. Checking on success of the publication arriving "on-time" was merely a matter of checking back for any "late" arrivals.

Limitations

W. Edwards Deming (1982) called reliance only on measurable figures without consideration of figures that are unknown or unknowable one of the big seven “deadly diseases” of an organization.

University educators are particularly sensitive to the limitations of data. Not only because of Deming’s warning that not everything that is significant can be measured, but also because of concern about the effects of intervening or confounding variables.

To mitigate these limitations of data, use a mix of measures. Include measures that are:

- short-term and long term
- focused on impacts as well as the processes that presumably created them
- both objective as well as softer and more subjective.

Zigon (1994) suggests aiming for measures of success that are “verifiable.” Following Deming’s thinking that some work cannot be meaningfully measured with numbers, he says, “...while numbers are easy to verify, descriptive performance standards can be just as useful if they have three components, a judge, factors the judge looks for, and a verifiable description of what represents meeting expectations.” For example, measures of success for building community among students in a graduate program may rely on descriptive standards more so than numbers.

In summary, it is probably safe to say that a single numerical measure is not adequate for making a “high stakes” decision about a program, service, or process. The numbers, however, may prompt further investigation.

A measurement system may fail for one of several reasons. It may fail because we:

1. impose management measures on the performing group instead of allowing the group to establish the measures
2. do not involve process owners in developing the measurement systems
3. treat measurement information and trends as private data and do not share the information with the group
4. ignore the suggestions of those who know the most about the process
5. fail to recognize and reward performance improvement
6. fear exposing good or bad performance. The group may be satisfied with the status quo and not want to upset anyone [although good measurement systems measure processes and organizations, not individuals]
7. improperly define the system or process to be measured
8. spend too much time on data gathering and reporting and not enough time on analysis and action
9. fail to consider customer requirements

From: Malcolm Baldrige National Quality Award Office

Figure 1: Why Measurement Systems Fail

Measures of Success in this Document

The remainder of this document is a series of figures containing higher education samples. Figure 2 contains a list of action words for creating goals. Following that list, you will find operational definitions for creating measures of success for:

- institutional success measures (e.g. retention, satisfaction, recruitment yield) identified by Dolence, Rowley and Lujan (1997) in Figure 3
- student retention (Dolence, 1991) in Figure 4

Samples of UW-Madison goals and measures of success in various campus plans are shown as follows:

- Graduate School Admissions in Figure 5
- Office of Quality Improvement services in Figure 6
- student academic services in Figure 7
- professional development and learning goals in Figure 8
- academic department goals in Figure 9

Figure 10 is a worksheet that an administrative unit or department can use for developing annual goals. At the same time goals are identified, the accompanying measures of success should also be identified. For this matrix to be useful, an office or department needs to have identified its core processes — those essential things it does to achieve its purpose.

For Further Assistance

The Office of Quality Improvement has several guides, models, examples and other resources to help you with your measurement needs. These resources are available to you through our document request center and our library. Below is a highlight of some of the various resources that we have. And as always, if you need further assistance, please call our office for consulting help on your measurement issues.

The Seven Basic Tools

This guide demonstrates how to use various tools that can help you with your measurement needs. These tools can help you identify what to measure, how to do so and how to analyze the resulting data. This guide demonstrates the use of flowcharts, cause and effect diagrams, check sheets, histograms, pareto charts, control charts, and scatter diagrams.

Memory Jogger for Education

This guide contains all the tools in the above guide plus additional tools that can assist you in your measurement needs.

Other Resources

We also carry other guides on focus groups, assessment, and we have numerous books in our library related to tools for measurement.

Accessing These Resources

Feel free to call and request a copy of any of the above materials or come browse through our library and document request center. We are located at 199 Bascom Hall. The document request center is at the end of the hallway. Please help yourself to materials at any time.

If you have questions or would like more information contact the Office of Quality Improvement, 608-262-6843, oqi@mail.bascom.wisc.edu.

Fuzzy Goals Not Allowed . . .

You can have fuzzy cheeks, peaches, toys, slippers and sometimes logic, but when your goals are fuzzy, it's hard to make them happen. (Forget trying to measure their success.) One way to be sure your goals are actionable is to include a verb or action word in each one. Here are some samples.

All-Purpose		Investigative (checking it out)	Consultative
Adapt Use Lead Supervise Collect Complete Help Serve Perform Initiate Communicate Streamline Publish Disseminate	Execute Utilize Simplify Gather Select Compare Expand Decide Recommend Increase Decrease Revise Discontinue Reduce	Analyze Explore Prioritize Survey Verify Locate Anticipate Hypothesize Determine Identify Conduct Interview	Advise Inform Negotiate Coach Guide Resolve Counsel mentor Suggest Demonstrate Model Teach Benchmark
Generative (making things happen)		Coordinative	Collaborative
Develop Modify Restructure Construct Devise Design Innovate Organize Revise Create Form Invent Produce	Establish Inaugurate Make Propose Simplify Redesign Re-engineer	Arrange Establish Mesh Coordinate Facilitate Intervene Organize Decide Harmonize Lead Direct Implement Systematize Connect	Accommodate Facilitate Persuade Support Assist Guide Resolve Unite Contribute Help Share Encourage Offer Steer Synthesize

Figure 2: Sample Verbs for Goals

Sample Measures of Success: Institutional Measures

The following measures of institutional success are from Dolence, Rowley, and Lujan (1997). The term they use is “key performance indicators” or KPIs.

Key Performance Indicator (KPI)	Definition
Undergraduate FTE enrollment	Number of total units attempted divided by 15
Graduate FTE enrollment	Number of total units attempted divided by 12
Tuition revenue	Tuition revenue collected net of institutional financial aid
Graduation rate	Percentage of full-time undergraduates who graduate in 4 [or x] years
Minority enrollment	Percentage of all enrolled students who are minorities
Placement rate	Percentage of graduates employed or in advanced study one year after graduation
Student-faculty ratio	Number of FTE students divided by number of FTE faculty
Recruitment yield	Percentage of students offered admission who enroll
Retention rate	Percentage of students who maintain satisfactory progress
Break-even major index	Total revenue deriving from students in each major minus the attributable cost of the major department
Average debt burden	Total value of loans divided by the number of loan recipients
Student satisfaction	Composite a score from annual students needs and priorities survey
Average SAT score	Average SAT score of incoming freshmen
Value of endowment	Book value of endowment at the end of each quarter
Deferred maintenance	Dollar value of maintenance backlog

From: Dolence, Michael G., Rowley, Daniel J., and Lujan, Herman, D. (1997). *Working Toward Strategic Change*. San Francisco: Jossey-Bass, Inc.

Figure 3: Sample Measures of Success

Sample Student Retention Classification System

The following classification for student retention is from Dolence (1991).

1. **Persisters:** currently enrolled students
 - a. Satisfactory Degree Progress: currently enrolled students who are making satisfactory academic progress
 - b. Unsatisfactory Degree Progress: currently enrolled students who have completed an insufficient number of units
 - c. Unsatisfactory Grade Point Average: currently enrolled students who have an insufficient grade point average
2. **Graduates:** previously enrolled students who have completed a degree objective
3. **Attainers:** previously enrolled students who have completed a non-degree objective
4. **Transfers:** previously enrolled students who are attending another university
 - a. Planned: previously enrolled students who came with the intent of transferring and eventually did transfer
 - b. Unplanned: previously enrolled students who did not come with the intent of transferring but eventually did transfer
5. **Stop-Outs:** previously enrolled students who are not attending another university and who maintain a continuing student standing
6. **Drop-Outs:** previously enrolled students who voluntarily decided not to enroll, are not attending another university, and do not maintain a continuing student standing
7. **Dismissals:** previously enrolled students who did not enroll due to university action
 - a. Disenrollment: previously enrolled students who did not enroll due to university action taken after financial nonpayment
 - b. Academic disqualification: previously enrolled students who did not enroll due to university action after academic disqualification
 - c. Administrative disqualification: previously enrolled students who did not enroll due to university action after administrative disqualification
 - d. Disciplinary disqualification: previously enrolled students who did not enroll due to university action taken as a disciplinary measure

From: Dolence, Michael, J. (1991). Setting the context for evaluation of recruitment and retention programs. *New Directions for Institutional Research*, 70, 5-19.

Figure 4: Sample Student Retention Classification System

Sample Measures of Success: UW-Madison Plans

Admissions Office, Graduate School

Goals	Measures of Success
Refine electronic application. In three years receive all applications electronically.	In 1996-97, the Graduate School received at least 25% of applications electronically
Provide workshops for academic departments on Graduate School enhancements and initiatives.	Each department has received instruction and every new departmental administrative employee has received training.
Provide orientation for new graduate students to disseminate information about the campus and Madison.	Positive feedback from students [in post-event evaluation].

Figure 5: Sample Measures of Success: Graduate School Admissions Office

Office of Quality Improvement

Goals	Measures of Success
Work with various units on campus to highlight success stories in <i>Wisconsin Week</i> and other venues.	Three articles highlighting campus accomplishments in vision priorities
Facilitate strategic planning with academic and administrative units on campus.	All projects are 3rd milestone; all continuing projects at 4th milestone.
Design and deliver open enrollment events based on campus planning and improvement needs	Four open enrollment events each semester with 75% of participants highly satisfied per evaluation.
Establish Home Page on WWW	All current groups with which OQI is working report using WEB resources satisfactorily. Number of hits increases from X per semester to Y.

Figure 6: Sample Measures of Success: Office of Quality Improvement

Student Academic Services

Goals	Measures of Success
Expand existing services by electronic means.	Total number of hours available for service increase from an average of X per month to an average of Y per month.
Investigate the possibility of redirection of existing department-based funds to needy students.	Report created on viability of resources from other campus sources.
Create transfer student orientation program for graduate students.	By end of the summer of 1999 there will be a 2-day orientation program offered for all transfer students.
Develop freshman orientation course for credit.	A 3-credit freshman survival skills course will be offered in at least 5 sections for fall of 1998.
Increase participation by minority students at all orientation events.	Participation by students of color will increase by X% at all orientation sessions.

Figure 7: Sample Measures of Success: Student Academic Services

Development and Learning Goals

(These are “Frankensteins” — bits and pieces from various plans put together in a new way.)

Goals	Measures of Success
Increase collaboration within the department to improve X.	Number of collaborative efforts in which more than one unit within the department/office was involved will increase from X [list them] in 1997-98 to Y in 1998-99. All of these efforts will achieve the anticipated gains. [<i>Note: this means that the anticipated results of the collaborative efforts must be clearly identified and understood at the start.</i>]
Provide opportunities for all employees to develop skills required for their work.	Each employee has a written and formally approved professional development plan which is carried out.

Figure 8: Sample Measures of Success: Professional Development and Learning Goals

Academic Department (Hypothetical)

Goals	Measures of Success
Improve academic advising process	<p>Each student has an assigned advisor. Academic advising is rated as "excellent" by 75% of recent graduates or . . .</p> <p>Chair will send form to students that must be signed by their advisor indicating student measures of progress (Used in development and school psychology areas of Educational Psychology Department.)</p>
Revise academic advising handbook	100% of faculty use the handbook and report it is "very helpful" to them in advising students.
Increase retention of students in the undergraduate major.	Percent of students who maintain satisfactory progress beginning with the semester in which they declare the major increases from the current X% to 100%.
Regain leadership in primordial studies education.	Enrollments in courses PRI 101, 102 and field experience increase and exceed levels for 1994-95 (banner enrollment year).
Establish undergraduate student organization.	<p>Organization maintains an average of X members and/or sponsors at least one out-of-class learning opportunity for students each semester.</p> <p>Members show higher than average rates of 1) entrance into graduate school or 2) retention in the major or 3)GPA or 4) other?</p>

Figure 9: Sample Measures of Success: Academic Department (hypothetical)

Sample Goal Development Worksheet

A matrix like this can be useful for developing annual goals. The core processes down the left side are those essential things we do to achieve our purposes. The strategic directions across the top are literally the strategies we have identified as an office that will help us get over, around or through the barriers while capitalizing on our strengths.

Not every square is necessarily filled in, but the question should be asked, "What does each strategic direction mean for each core process?"

Strategic Directions ▶ Core Processes ▼	Focus our efforts where they will best advance the UW mission, vision and priorities	Create and improve connections that foster the advancement of the mission and vision	Build capacity of others for planning and process improvement	Model effective planning and improvement
Strategic Planning & Consulting				
Process Improvement Consulting				
Data Collection & Analysis				
Provide Learning Opportunities				
Administrative Support				

Figure 10: Worksheet for Identifying Annual Goals

Action Plan 2000 - 2001

Goal: _____

Measure of Success: _____

Goal Point Person: _____

(ensures that goal moves forward)

Objective/ Activities	Person(s) Involved	Time Frame	Cost	Products/ Results	Measure(s) of Success (every objective need not have a measure of success)

This planning session has one rule: People cannot be assigned tasks unless they are present. If it is unavoidable, then someone in this room is assigned the task of notifying and/or negotiating with the individual.

Figure 11: Sample Format for Action Planning

Appendix A

Worksheet for Identifying Measures of Success

Your Goal:

If your goal doesn't have an action word in it, refer to page 8. Add the appropriate action word to the goal so that what you intend is clear.

1. Who are the stakeholders who will be affected by this goal?

- Faculty
- Department Chair
- Others
- Staff
- Other Academic Departments
- Students
- Other Administrative Offices

2. What is this goal primarily aimed at?

- Improving efficiency
- Monitoring Progress
- Improving effectiveness
- Other
- Improving quality

3. In your own words, what would tell you that you have successfully achieved your goal?

Appendix A (continued)

4. Re-state/refine your answer(s) to question 3 so your measure of success:

- is clearly defined (so another person in your department/office would understand it)
- can be measured at the end of the year
- can be compared over time
- tells you (or will tell you) whether the effort made any difference, had any impact

5. Are the data to answer question 4 (your measures of success) available now? If yes, how are we doing right now? If not, how can we get this data? Who will be in charge of collecting it?

Data to be collected or to continue being collected	Baseline (How are we doing right now?)	Who is collecting it (or will be) and how?

Note: This worksheet was developed on the assumption of annual goals congruent with the budget year. A planning cycle other than one year may work better in your setting.

Appendix A (continued)

6. At Check Points Throughout the Year

Are we collecting the data we will need to evaluate at the end of the year?

What do the data tell us right now? Are things going as planned? Do we need to adjust our plan?

Questions this information raises?

7. At the End of the Year

How do the results compare with what we expected would happen?

What have we learned?

Do we need to change our hypotheses about cause-and-effect? What do we know about the needs of our stakeholders now? What should we do differently in the future?

Will the goal and/or measure of success stay the same or change based on this past year's experience?

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