1.5.5 Identifying Performance Measures for a Program

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The (previous) module ***1.5.4 Writing Performance Criteria for a Program*** identifies how to write performance criteria. Once those performance criteria have been revised and edited, it is then possible to look at each of them to determine which are really important to measure. Using the examples of performance criteria from academic and non-academic functions found in Table 1, this module will provide important guidance for identifying key performance measures for a program. The following module prompts one to identify the measures, distinguish direct and indirect measures, describe why independence in measures is essential, and highlight some of the common pitfalls that are encountered when identifying key measures.

Generating Potential Measures

The heart of a good program assessment system distinguishes between what is *important* to measure and what is available or *easy* to measure (Nichols, 1991). In looking at performance criteria statements, one might ask "What aspects of this performance are most important to measure?" For example, in the student-centered performance criteria from Table 1, it is important that the learner is truly taking ownership for learning. One might survey students about their academic career plans. Another method is to consider what questions one might ask someone else (e.g., students, faculty, alumni) in order to determine whether a particular performance was met. A third way could be to interview stakeholders affected by the criteria, such as parents of past and present students. However, as the focus of data collection shifts away from the primary participants cited in a criteria statement, it is vital to conduct direct questioning so that data are not diluted with non-essential information. In selecting measures, it is also important not to let historical measurements and existing data collection tools dictate what is most important to the program. Finally, performance measures should be independent, thereby ensuring that measures are not correlated. Another rationale for independence is that the cost of a measure is normally non-trivial, and it is expensive to take multiple measurements on the same variation.

Using the performance criteria developed in the previous step, the following three key prompts can assist in identifying what is most important to measure. Although it may be tempting to identify what is readily available or easy to measure, these prompts are intended to assist in identifying what is most important to measure.

- **What aspects of this performance are most important to measure?**

  One should look at the performance criteria and find those aspects that are most important to measure. For example, look at the second performance criterion "student-centered." In the case of this criterion, self-directed learning is a critical aspect of performance for a college or university that is student-centered. The proportion of accepted learning plans could be good evidence for measuring this criterion. For example, you might divide the number accepted by the total number expected.

- **What does the performance look like when you see it?**

  Literally step back and visualize the performance happening and again ask yourself, Which aspects are most critical to the performance? Think of yourself with a camera and focus the lens on the aspect of the performance that is most critical. For example, consider "rich curriculum" as the performance criteria (fourth row of Table 1). What do you visualize when you consider a program's curriculum that is "rich"? In this example, the English faculty envisioned one that is challenging, diverse, and growth-oriented, and they identified "diversity" as the most important aspect to measure. While the challenge will be to create an instrument that will measure "diversity," it is important at this point not to worry about the difficulty of measuring ("it's too complex") and to focus instead on what is most important to measure.

- **What do you need to measure to convince others that the performance expectation was met?**

  Another way to identify key measures is to consider what evidence you would need to present to stakeholders to convince them that the performance expectation was being met. The "service-oriented" performance criterion (seventh row of Table 1) is typically an important performance for administrative offices. Critical evidence for this would be a strong measure of collective satisfaction of clients (percent satisfied versus individual satisfaction). Another method is to

Table 1 **Examples of Measurable Attributes**

Performance Criteria	*Measurable Attributes*
Academically sound graduates Scientifically literate graduates who are able to analyze, synthesize, and evaluate information in the areas of basic human communication processes, communication differences and disorders, and other skills, and who are prepared for doctoral study and/or professional careers.	research skills mastery of professional practice
Student-centered An enriched active learning environment in which faculty, staff, and students focus on students' development through updated learning plans with personalized learning objectives, services to meet special needs, and continual assessment of student learning.	percent of currently accepted learning plans
Success-oriented A supportive community that responds to students' special needs and refuses to accept failures by having the language, values, and expectations of success; significant accomplishments and high performances drive all to seek more from themselves to produce the outcomes the community desires.	graduation rate
Rich curriculum A rich and diverse range of courses that span genres, historical periods, major authors, ethnic backgrounds across many Anglophone cultures, and explore diversity issues in race, sex, and economic backgrounds.	diversity
Qualified graduates Fully qualified graduates who are consistently accepted in graduate schools of choice because of their documented abilities to carry out independent laboratory work, undergraduate research, and effective problem solving.	placement success
Research (Office of Research) Extensive, widespread research effort with collaboration among students and external researchers resulting in highly-funded research projects and significant numbers of peer-reviewed journal articles and presentations.	number of faculty with the number of annual qualified publications research dollars
Service-oriented (Administrative Office) Consistently puts interests of others first, clarifies clients' needs, aligns work with institutional needs, provides effective consulting, and values prompt, effective, and conclusive responses to clients' perceived needs.	satisfaction of clients

consider how you might ask someone else (e.g., student, faculty, alumnus) how they would determine whether the performance expectation was being met. There are any number of questions you might ask these stakeholders. However, an important aspect of service orientation is customer satisfaction, so if you had a strong measure of your clients' satisfaction, you could convince others that you were service oriented.

When one asks these questions, there is a tendency to start thinking about how that aspect of the performance can be measured. It is critical that measurement concerns are put aside until it is decided what is most important to the program. As you look at the measures you have identified, consider whether or not they measure the performance directly or indirectly.

Distinguishing Indirect from Direct Measures

Frequently an aspect chosen for measurement will act as an unintentional "proxy" for what you truly want to measure. In other words, there may be high a correlation between the measure and the actual performance (Middle States Commission on Higher Education publication *Characteristics of Excellence* IR 117). However, that correlation does not mean that you are actually measuring performance.

For example, see the fifth performance criterion listed in Table 1, "qualified graduates." One could choose the more readily available measure of placement "rate" (the proportion of graduates who were accepted into graduate schools) versus placement "success." Placement success more directly captures the aspects that are important, such as "placement of choice" and because of "documented abilities." Placement rates, on the other hand, assume that placement success is attributable to the sheer numbers graduating; it lacks a quality measure.

Another common example is to ask stakeholders (e.g., students) to report their perceptions or satisfaction in achieving learning outcomes. For example, in the first performance criteria, "academically sound graduates" one measure might be students' perceptions of their own abilities to analyze, synthesize, etc. However, student perception is an indirect measure, often easier to obtain but less important for the purposes of program improvement than direct measures of student research skills. It is imperative to realize that regional accrediting and professional accrediting bodies do not accept indirect measures of student learning and associated learning outcomes. This is especially true when grades are used as measures of student learning.

Maximizing the Independence in a Set of Measures

By selecting measures that are sufficiently independent of one another, you ensure that resources are used efficiently in data collection, and you present a more complete and holistic picture of program performance in any given area. This can be illustrated with the "qualified graduates" performance criteria.

In this situation, two measures that would be more independent than "consistently accepted to graduate schools of choice" would be GRE scores for graduate school and job placement. These measures really address different sets of competencies and skills. Two measures that would be less independent would be the job placement rate versus the average first-year salary of all graduates; as more graduates get placed, the average salary usually increases, thus illustrating the interdependence of these two measures.

Because the cost of a measure is normally non-trivial, the measure should be independent and should not replicate other measures. This is true both within and across the performance criteria. A way for determining independence is to assure that what is measured is something significant that is not correlated with other measures.

Common Pitfalls

Low-Cost Data

Avoid being trapped by what is currently available or what is being measured because often this data is not relevant to what really matters. Most people think that any data has value. Even when data is essentially free, there is still the cost of analyzing it and bringing meaning to it so that future performance will be enhanced. The process of program assessment is as useful for helping make decisions about what you will stop measuring as for what you will start measuring.

Method Bias

There is a tendency to choose to use particular instruments before one has identified what to measure, chosen the best venue for collecting this data, and determined the number of items required to characterize performance. Performance criteria should prescribe the measurement methods; the methods should not prescribe the performance criteria. Being tactical and precise in instrument selection simplifies data collection and ensures the chosen measures are the most cost-effective.

Dilution

Often one does not do an effective job of prioritizing the potential measures. When this happens, essential attributes may not be measured well, while less important attributes may be measured very well. Some attributes of the performance criteria are more important than others. One criterion may actually capture as much as 60% of the performance. More criteria are not necessarily better; multiple criteria can serve to discount the value of each. When there are two potential attributes for measurement, ask whether they are similar enough to each other that you can consolidate them or choose just one.

Relevance of Historical Data

There is a tendency to continue to measure what has always been measured, even when this is no longer appropriate. As programs change, the attributes of the performance that should be measured need to be modified. Completeness and continuity of the historical record is meaningless if these data cannot be used to guide improvement efforts that flow from current performance criteria for a program.

Grandstanding

The purpose of program assessment is to foster continuous improvement. However, it can be tempting to pick only those measurable attributes that showcase current high-performance levels, and avoid areas in which performance needs to be improved. Such a one-dimensional approach ensures that the status quo is maintained, ultimately giving up long-term competitive advantages that result from regular attention to ongoing improvement.

Concluding Thoughts

At the heart of a quality program assessment system is the minimum set of measures that provide feedback on what really matters. Make sure that these measures are derived directly from the performance criteria, that it is feasible to collect them, that the results can be analyzed meaningfully, and that the results and methods will be respected by the campus community. Selecting measures, like writing performance criteria, is best done as a collaborative activity involving stakeholders at all levels in the institution. By putting the spotlight on a minimum set of independent measures, involving multiple constituencies in interpreting measurement findings, and promoting broad-based dialogue about how to respond to these findings, an institution will be taking positive steps toward realizing its mission.

References

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