Keys to Improving Academic Assessment

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Abstract

This paper presents ten critical ideas about assessment that, when placed into practice, can significantly advance and add value to every academic professional's work. Together, these ideas form a set of principles and practices whose impact can be measured to provide a comprehensive picture of the assessment culture in an organization. Each idea presented here is supported by the literature and informed by the use of the idea in practice. Key terms and schema relating to assessment are defined, related resources are noted, and ways in which assessment can enhance student learning and growth, enhance faculty performance, and improve institutional effectiveness and quality in its collective learning environment are shown. The ideas presented here fall within three categories. The first category addresses vital issues in the relationship between assessment and evaluation. Specific topics addressed in this category are the role of measurement in assessment, common misconceptions about assessment, using assessment to enhance performance on an evaluation, and turning evaluation into assessment. The second category deals with assessment values, practice, and mindset. Specific topics addressed in this category are key steps in the assessment process, writing clear performance criteria, assessing assessments, and self-assessment for growth. The third category deals with conditioning and historical cultural norms in higher education that prevent change toward an assessment culture. Specific topics addressed in this category are the role of assessment in the mentoring process and the assessment mindset. The paper closes with a brief description of issues regarding cultural change that must be confronted when an organization in higher education begins to embrace and implement these ideas.

Introduction

During the last fifteen years, Pacific Crest and its associates have been coaching and mentoring faculty, programs, and colleges on how to improve teaching, learning, instructional design, mentoring, and effective use of technology and educational systems. A major cornerstone in those efforts has been the effective use of assessment. This paper presents ten critical ideas about assessment that, when placed into practice, advance and add value to every academic professional's work. Key terms and schema relating to assessment are defined, additional resources are noted, and ways in which assessment can enhance student learning and growth, enhance faculty performance, and improve institutional effectiveness and quality in its collective learning environment are shown.

There has been a lot of very good news about assessment over the last seven years. Assessment is not considered a fad anymore by most college stakeholders. In reviewing the history of assessment, it is clear that there has been significant attitude change in the past two decades. During the late 80's few individuals in higher education knew of or were exposed to assessment, the 90's became the change decade, and now in the 21st century assessment is being slowly embraced (Astin, 1993; Banta & Associates, 2002). A very similar pattern occurred with total quality management (TQM) in the business community. The effort towards increasing quality closely parallels the assessment movement in higher education. It took TQM over twenty years to make significant cultural penetration into businesses where practices matched intent. Similarly, when assessment comes up in campus discussions now it is not whether assessment must be incorporated, but a matter of how, in what areas, by whom, when, and for what purpose.

A consistent issue that all colleges have about assessment is deciding how to embed assessment where opportunities are most meaningful and valuable for the growth of its students, faculty, staff, and self. Through discussions, research, practice, and community events involving hundreds of faculty innovators, we have identified ten key ideas in the use of assessment that educational professionals find extremely beneficial in improving performance (Apple, 2005; Elger et al., 2006; "Pacific Crest Home Page", 2006; "Scholars Community", 2006). These ideas are foundational for producing significant results from assessment practice. From our collective experience, we have found that there is great potential for obtaining increased buy-in and significant movement towards an assessment culture when these ideas are extensively implemented on a campus.

The ideas presented here fall within three categories. The first category addresses vital issues in the relationship between assessment and evaluation. The second category deals with assessment values, practice and mindset. The third category deals with conditioning and historical cultural norms in higher education that present barriers to easy change towards an assessment culture. Finally, it is important to understand how these ideas relate to the process of change so that transformation towards an assessment culture can be facilitated. The ten ideas

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Table 1 Critical Ideas for Improving Assessment

AREA 1: *Relationships Between Assessment and Evaluation*	
1. Role of measurement	Quality measurement is critical in both processes
2. Misconceptions	There are three key misconceptions commonly formed about assessment and evaluation
3. Using Assessment to enhance performance in an evaluation	Assessment can be useful in preparing for and doing better in an evaluation
4. Turning evaluation into assessment	Evaluative feedback can be turned into assessment for growing future performance
AREA 2: *Assessment Practice*	
5. Key steps in the assessment process	Quality assessment involves defining an assessee centered purpose for the assessment, establishing the rules of engagement, and carefully selecting the criteria for assessment.
6. Writing clear performance criteria	Clear descriptions of the multiple aspects of quality in a performance are critical in order to establish effective measures of the level of performance
7. Assessing assessments	Assessment processes and practices themselves should be assessed in order to improve assessment practice
8. Self-assessment to produce self-growth	Self-growth can dramatically accelerate when time is taken for self-assessment
AREA 3: *Higher Education Culture and Impact on Assessment*	
9. Role of assessment in mentoring	Mentoring can improve future performances through quality feedback on processes rather than content
10. Evolving an assessment mindset	The shift to assessment culture within an evaluation culture requires several key ingredients

in Table 1 will be discussed by describing each one's meaning, identifying issues that need to be addressed, noting ways for effective implementation, and linking to key resources.

Evaluation as a Strong Cultural Value of Higher Education

Before we start to describe each idea, it is important to characterize the culture of Higher Education and its key values and practices that distinguish it from other institutions. Higher Education ensures through its disciplines that knowledge which is created and disseminated is of high quality. Only through this knowledge being of highest quality can other segments of society use this knowledge with some reliability (Duderstadt, 2000). In addition, the process of obtaining access to the fraternity of higher education (graduate degrees) requires that a person acquire a set of values and practices that are highly valuable but often narrow in scope. These include how to survive given enormous amounts of evaluative feedback through coursework,

research, peer publications, committee reviews, teaching experiences, etc. This type of feedback, prevalent in the culture, tends to find fault in what you learn, what you say, how you perform, and what you produce. Because of this environment, many people begin to norm their behaviors by making sure that public performance is well rehearsed, learning is done individually and in private, only "final" products are presented, and that most efforts are individual because this is how they get credit (Tierney & Rhoads, 1993).

Thus, academic culture develops future faculty as individuals who can construct knowledge in the discipline, process disciplinary journals and resources, and make strong judgments to the quality of this disciplinary knowledge according to their own understanding of this knowledge. In addition, future faculty develop significant skills such that they can perform the research process effectively within the domains of their disciplines through established methods. Within these roles the acceptance of evaluation is a must and the evaluation of others is expected (Mills & Hyle, 1999).

AREA 1: Relationships between Assessment and Evaluation

Over the past 15 years, our research has uncovered numerous relationships between assessment and evaluation. However, in order to talk about assessment and evaluation effectively, it is important to first clarify the use of language since there are as many definitions of assessment and evaluation within the literature as there are about any two words used in Higher Education. Furthermore, both are integrally related to the process of measurement as described at the beginning of the next section. The definitions and purpose for terms listed in Table 2 have evolved as extremely useful ways to differentiate and clarify the use of each term and will be used as shown throughout this work.

1. Role of Measurement within Assessment and Evaluation

Measurement is a process that is often poorly understood. First and foremost, assessment should not be confused with measurement. The practice of measurement of teaching and learning throughout Higher Education holds significant opportunity for improvement. Nonetheless, in either quality assessment or quality evaluation processes, one must always collect quality data via the measurement process to understand at what level the performance has been delivered. From this data, an assessment can be produced to help improve the performance. Also from this data an evaluation can be made to determine the acceptability of the performance. In either case, it is critical that the areas of quality in the performance are clearly stated (see idea number 6, writing clear performance criteria) so that one can identify what really matters and then locate or construct the means to accurately and reliably measure those areas. In order to produce the needed analysis in assessment or the judgment in evaluation, it is critical that the measurement is done in timely, effective and meaningful ways where the participants in the process can be assured that the data are reliable, targeted, and comprehensive in order to carry out the intended purpose (Stiggins, 1987).

Among the community of scholars currently advancing this knowledge area are the Evaluation Centers at colleges like Washington State University and Western Michigan University, and those organizations involved in placement of individuals like ACT and ETS. From this community, tools to measure many areas of performance critical to student learning in higher education have already been developed (Beyerlein, Holmes, & Apple, eds., 2005; Hatry, Houten, Plantz, & Taylor, 1996; Schrock, 2006).

2. False Assumptions about Assessment

There are several key assumptions that many educators make about assessment which make it very difficult for them to elevate the use of assessment and its quality in daily practice.

Assumption 1: A need for improvement implies poor quality. Within an evaluation culture, if someone is working to get better it is assumed that they are sub-standard. For example, when a faculty member is recommended to go to a teaching workshop it implies that they are not teaching well enough. Once it is understood that everyone can improve and that stating a need for improvement implies that someone is committed to making that improvement then areas for improvement become a positive sign rather than a negative stigma. An area for improvement is very much different than a weakness, but people frequently interchange these words.

Assumption 2: High quality implies no need for improvement. This assumption is almost the converse of assumption one. Star performers have found that improving all areas of performance is productive in advancing overall performance, not just focusing on the least effective areas. The focus at any point in time should be in the area that can contribute to the greatest growth. Sometimes the camera should be on a strength, because you want to understand better how this strength works and why it is contributing so much to a performance. At other times the camera should be on an area where you can see that you are being

Table 2 Definitions

Term	Definition	Purpose
Measurement	The process of determining the level of performance on a scale	Determine level of quality
Assessment	The process of measuring and analyzing performance to improve a future performance.	To improve quality
Evaluation	The process of measuring performance against a set of predefined standards to make a judgment of to what degree that these standards were met.	To judge quality

held back from achieving the level of performance you would like. Thus, it is important not to bias the selection of focus away from strengths because they are equally important as areas for improvement.

Assumption 3: *The person receiving feedback will know how to make use of the feedback to improve.* For example, most faculty believe that students are used to getting evaluative feedback and therefore know where they need to improve to meet a benchmark. However, most people who get evaluative feedback are not capable of using it effectively for two major reasons. First, they are not emotionally prepared to take an evaluation and transform it into an assessment (see Idea number 4, Turning Evaluation into Assessment). Second, and more importantly, the analysis skills for the given context are nearly always beyond the performer's skill set to provide meaning and direction from the evaluation to apply towards improving their future performance. For example, in a composition course, students who get feedback on their paper see the issues but have little clarity of what to change in their writing process to make this improvement. Therefore, it is important to understand that the assessor needs not only to provide feedback on how to improve content, but also how to improve process.

These ideas are echoed by Entwistle when discussing faculty development to improve student learning.

> Evidence on conceptual change suggests that, first, the individual has to perceive a reason for change. If the existing conception still feels adequate [high quality → no need for improvement] and comfortable, change is unlikely. A variety of experiences have to be provided which both challenge existing conceptions and suggest interesting alternative conceptions [suggested improvement does not mean low quality in current performance]. But these experiences have to be carefully managed within an encouraging and supportive climate. The experiences also have to be designed to fit the previous knowledge and learning habits of the learners involved [such that they can make use of the feedback] (Entwistle, 1995, [notes added]).

3. Using Assessment to Advance Performance in an Evaluation

A very important relationship between assessment and evaluation is the way in which evaluation can create motivation for assessment. Everyone wants to perform well, and when there are well-defined means in place to determine level of performance, the use of assessment to continually improve performance

against these means in preparation for an existing evaluation is a very motivating force.

Now, it is important to realize that the assessor cannot drive the relationship. Despite the fact that the assessor wants to assist in increasing the performance of the assessee, a hidden motivation to help themselves is often present as well. For example, in the teacher-student relationship, most often the faculty member desires to improve the student's performance so he or she gets strong reviews as an educator. The department chair wants his or her junior faculty to grow and prosper so he or she gets tenure and strengthen the department. The college wants its programs to get better so the college is reviewed as world-class. The advisor of the Ph.D. candidate wants his or her mentee to pass a dissertation defense and expand the community of established expertise. In each case, the person who is in a position to provide assessment to help improve performance in the evaluation process also has a stakeholder interest in the results of the evaluation. If these assessment relationships are led by the assessor rather than the assessee, this leads to force-fed assessment, or the desire of the mentor/teacher/administrator wanting success more than the mentee. When this occurs it severely reduces the potential for growth of the assessee because long term behavioral change comes from within and not from the outside. Effective, internalized change cannot be mandated (Fishbein & Ajzen, 1975; Goldsmith, Govindarajan, Kaye, & Vicere, eds., 2003). Thus, it is much more effective to use a mentoring process to set up the desire for assessment and then let the assessee play the central role in the assessment process where they initiate and implement assessment. In this way, preparation to perform in evaluations will by much more effective due to internal forces driving the desire to perform well in the evaluation process.

4. Turning Evaluation into Assessment

The fundamentals of turning evaluation into assessment are to ask more of the feedback, respond non-emotionally to the feedback, and to structure the feedback in three forms – strengths, improvements, and insights.

Asking more of the feedback: as informed by best practices in the literature, over the years we have synthesized the information to develop many profiles and performance measures such as the profile of a self-grower, quality learner, and a quality faculty member (Collins & Apple, 2003; Krumsieg & Baehr, 2000; Nancarrow, 2003) as well as performance measures for level of self-growth, level of learner performance, and

level of educator performance as am assessor (Jensen, 2006, 1; Myrvaagnes, 2006). In each of these profiles is the ability to effectively reflect and self-assess in order to move up the scale and reach the highest levels of performance. In other words, quality self-assessment is a must. Therefore, the opportunities that each person has for using evaluative feedback as the basis for transforming this feedback into assessment is a critical factor in becoming a "star" performer. In order to do this, one must view evaluative feedback as benchmark data to use and expand upon within a flexible, proactive self-assessment process to improve performance.

Non-emotional response to the feedback: most individuals who receive evaluative feedback are not ready to use this feedback for growing future performance because they are too emotionally wrapped up in how well they just performed. Responses to evaluative feedback may be to ignore it in the case of satisfactory performance or to feel that the evaluation process was flawed and that it was unfair in certain aspects in the case of unsatisfactory performance. However, if the feedback is taken and analyzed through the lens of assessment, evaluative feedback can be useful. Furthermore, by focusing on performance rather than performer it becomes easier for the evaluator to provide more information and analysis and for the performer to use this feedback since it is removed from emotionally laden ties to the performing individual.

Organizing feedback into strengths, improvements, and insights: evaluative feedback can identify strengths and help build those strengths through analyzing the reasons behind why those strengths contributed to the performance, identify areas for improvement and lead to action plans for achieving those improvements, and provide insight about the underlying elements of the performance that has just been evaluated. By organizing evaluative feedback in this way, "the evaluation no longer serves as a punitive measure or a justification document, but instead serves as a … useful tool by which the performer's progress is measured within the assessment paradigm (Watson, 2005)."

Area 2: Assessment Practice

Current practice of assessment can often be enhanced by recognizing and incorporating some commonly missed fundamental tools, concepts, and alignment with basic principles. The most important areas to consider include writing clear performance criteria, evolving an assessment mindset, and importance of assessing assessments.

5. Key Steps in the Assessment Process

As learned through assessing thousands of different assessment processes and systems over the last 15 years, effective assessment always involves several common steps (Apple & Baehr, 2005). Observation has shown the following to be the most frequently missing steps: ensuring the assessment request and purpose come from the assessee, establishing the rules of engagement between the assessor and assessee, ensuring assessment is delivered only in the desired areas, and formatting feedback in a structured manner for the assessee.

The first step is determining who has requested the assessment and for what purpose. Clearly, we understand that no individual can control the behaviors of someone else. Thus, assessment must be learner-centered around the assessee, where they desire to make changes for a desired outcome. Whether an observation that a change could be beneficial originates with the mentor or the assessee, the assessee must want and agree to the purpose of the assessment (Chism, 1999).

Another critical step that is often skipped is in the establishment of rules of engagement between the assessor and assessee. This helps to create an atmosphere of trust within the assessment process and relationship. Creating simple guidelines for collecting assessment data and delivering the feedback lead to conditions where the feedback can be used effectively to produce an enhanced future performance. Conditions to consider include setting proper boundaries and conventions, agreeing upon the way in which the performance will be viewed, and finally, determining how and when the feedback will be delivered (Arreola, 1995; Chism, 1999).

Checking that the criteria used for the assessment align closely with the focus areas chosen by the assessee is another step that is often skipped or poorly addressed. This may arise from a situation where the assessor feels he or she is in a better position to determine what the assessee needs and thus uses his or her own values and expertise to make these decisions. However, the truth is that the person being assessed is actually in a much better position to know what he or she needs. Here are the conditions that must exist for the criteria to be valuable; the assessee must a) want to improve in the areas subject to the criteria, b) have an opportunity to improve, and c) feel they can benefit significantly from the assessment because the criteria are important to the overall performance. The assessor needs to understand that their role is one of servant leadership,

often providing a recommended list of potential criteria, but must let the assessee choose the criteria that meet the previously stated conditions (Angelo & Cross, 1993).

Finally, assessment feedback is often left underutilized despite intentions to bring higher levels of understanding, comprehension, and meaning to that feedback. As mentioned in idea number four (turning evaluation into assessment), organizing feedback into three forms: strengths, areas for improvement, and insights, is a simple but effective way to elevate the quality and usability of assessment feedback. The first area of analysis is clarifying the strengths in a performance as to their value and in how those strengths were produced. Often, individuals or programs produce value, but don't realize it and are unaware of how they did it. If a future performance is going to leverage off of demonstrated strengths, we need to understand them. The next area of analysis is the production of well developed action plans that describe how the most important improvements are going to be made. This is where the assessor "earns his or her money" or produces significant value. Their expertise can provide much better direction and more quickly develop practices to gain these improvements. Finally, since assessing something allows you to be in a very special learning situation, you can share your new understanding and learning with the assessee through well developed insights (Gardner, 1997; Parker, Fleming, Beyerlein, Apple, & Krumsieg, 2001; Wasserman & Beyerlein, 2005).

6. Writing Clear Performance Criteria

Fundamental to quality assessment and evaluation is having clear performance criteria. These criteria form the foundation for building and improving performance in any type of assessment setup. Simply put, performance criteria are the areas of quality encompassing an action or task to be performed. Another definition might be "a description of the quality requirements" during and as a result of a performance (Beyerlein, Holmes, & Apple, eds., 2005; Rogers, 2002; ilo.org, 2006).

The writing of performance criteria is one of the more difficult tasks for faculty and staff. It requires skills in identifying and prioritizing the key qualities that are sought in a performance or a set of performances, an analysis of these qualities, seeing the pattern in the analysis, visualizing the performance, and finally writing the clear statement of what this performance looks like. Additionally, the performance criteria should be described in an explicit and motivating way such that buy-in to these challenging expectations is

generated for all stakeholders (Airasian, 1991; Arter & McTighe, 2001).

Performance criteria are a must for improving and document performances such as learning activities, courses, and programs. They are also critical for administrators, determining the level of institutional effectiveness, effective faculty tenure and promotion process, and accreditation. The performance criteria provide an excellent foundation for identifying a set of measures that really matter and correlate strongly to the integrated performance desired. The more performance criteria are imbedded in daily practices, the stronger the assessment culture evolves and the more likely effective feedback will be both generated and integrated for improving future performance.

7. Assessing Assessments

Any person involved in assessment knows that assessment is used to advance performance in many areas of educational practice and processes. The one practice/process that rarely gets assessed is assessment. It is critical that assessment systems, processes, and practices be assessed on a frequent basis to improve their quality. The current quality of design, implemented processes, and individual practices can be improved significantly. This issue has been raised to some national prominence in recent discussions at the Association of American Colleges and Universities annual meeting, with former American Council on Education president Stanley Ikenberry stating that assessment has benefitted from increased visibility "but for a long time has seemed stuck on page 1 (Jaschik, 2009)." The identification of clear criteria and measures for assessing assessments with timely data collection and analysis can provide feedback that can be incorporated in improving the performances of the assessments.

The assessors and the designers of assessment systems and processes must initiate the desire and mechanisms for this assessment to occur. Models for doing this assessment have been proposed (Walker, 1999; Villano, 2006). However, these kinds of models tend to focus on the assessment of measurement instruments or groups of instruments (which are commonly referred to as "assessments" despite their actual purpose of measurement), rather than assessment of the analysis and feedback produced from the instruments themselves. The assessment experts are normally in control of the assessment systems and processes and are the least likely to initiate the improvement of these assessment of assessments. A practice that is very effective is for the assessee to assess the assessment they receive.

8. Self-assessment to Produce Self-Growth

The enriched learning environment in higher education is based in an assessment culture where each person wants to improve and practices self-assessment as a means of mentoring self-growth. This basically requires support for stopping to take a few minutes after each performance – teaching a class period, finishing up a course, designing a new activity, writing a proposal, facilitating a committee meeting, etc. to assess the performance to see how future performance can be improved. The pressures of performance (doing) has increased over the last ten years and as a result leaves even less time to be reflective and the discipline to practice self-assessment. This is the fundamental basis for shifting a culture to self-growth. Carole Adams has written a brief but excellent guide to the principles of self-assessment and how they connect to workplace performance (Adams, 2004). In addition, there are many resources for self-assessment, some of which are freely available online (Full Circle Associates, 2006).

Area 3: Higher Education Culture and Impact on Assessment

The shifting of a Higher Education institution towards a continuous quality improvement environment is a non-trivial transformational change. Many forces are lining up to encourage, challenge, and support this change such as regional and professional accreditation, state legislatures, professional associations, funding sources, and students. There are many things to consider in expanding assessment systems, processes, and practices within Higher Education.

Higher Education has conditioned faculty with years of experience for both receiving and providing evaluative feedback. Faculty are familiar with giving (or getting) feedback to improve content to meet a benchmark – not in giving (or getting) feedback on improving the process. A significant value in Higher Education is being critical of the thinking and knowledge of others. De Bono called this the Intelligence Trap — it is much easier to find fault in others, their ideas, and performance than putting oneself in a risky venture of presenting one's own ideas, trying out new innovative practices, or presenting new research or ways of improving something established (de Bono, 1994). A quick inventory of practices that are traditionally evaluative in nature would include the assignment of course grades, tenure and promotion processes, student evaluations, peer review of research grant proposals and scholarly publications, evaluation of textbook materials, and considerations for merit pay.

9. Role of Assessment in Mentoring

The valuing of growth in performance is fundamental in a mentoring relationship. The key role of a mentor is to help improve future performance by proving quality feedback. The key question then is - If you want to improve future performance do you need feedback on content of the current performance or process of current performance? This is the issue – a need to intervene on process and not content. The assessment feedback in a mentoring relationship is associated with how to improve the performance and not on content of the performance. For example, in the writing process, often feedback is given on how to improve a certain paper that is being written rather than looking at the issues behind the performance with subsequent use of this new understanding by the mentee to improve their writing process.

There is a wealth of information about mentoring available in the literature. A very short guide to providing quality feedback in a mentoring relationship is available from the International Mentoring Association (Sweeney, 2003). Johnson and Ridley provide a relatively recent and complete resource for mentoring in their book *Elements of Mentoring* (2008).

10. Evolving an Assessment Mindset within an Evaluation Culture

The whole mindset of assessment shifts the philosophy of how feedback is to be given and received (Jensen, 2006, 2). Evaluation is an important process and should be utilized in addition to assessment. However, most of the time when feedback is really being structured for helping improve performance, the feedback still comes across as evaluative. Most people who are in the position of giving feedback to others do not differentiate evaluative feedback and assessment feedback. People really only differentiate between evaluative feedback and assessment feedback when they are receiving the feedback. Therefore, it is important to set up conventions and practices that create and foster an assessment culture. Some of these ideas are described for an academic environment by Utschig (2007).

Further, one of the most important reasons for actively seeking an assessment mindset is that faculty are not typically immersed in such a mindset. They are familiar with giving (or getting) feedback to improve content to meet a benchmark – not in giving (or getting) feedback on improving the process. In the shift to an assessment mindset, language becomes important; understanding other's values and perspectives is fundamental; and, finally, wanting others to improve performance must be an important goal.

The Theory and Practice of Facilitating Cultural Change

Fundamentally, shifting to an assessment culture requires a significant transformational change. The theory of change and how to facilitate change in Higher Education is really important for creating an assessment culture. Inside facilitators are at high-risk because it implies that they are better than their peers and thus come across as an outsider. The facilitation works much better from outside where the challenges and the discharge of issues leaves the organization the ability to move forward, positions key change agents as mentors rather than interlopers, and a produces a community of practice that can evolve together.

Conclusions

These ten ideas about assessment form a critical core that, when put into practice, can generate significant value and impact for all professionals working in academia. A key element of these critical ideas is that together as a set they empower participants and accelerate self-growth. However, this is only true when considering assessment as a process used to improve future performance as defined above. When assessment is based on careful and structured analysis arising from well-developed measures articulating high performance expectations, then performance can improve dramatically. This is particularly true when that assessment has been (or can be) separated from evaluation. Furthermore, these effects are multiplied when both the process for assessment and the criteria on which the assessment is based are clear. Both of these conditions (clear criteria for success and well developed measures) are necessary for the academic professional to effectively utilize self-assessment and, additionally, assess the value of the assessment feedback they receive to maximize performance gains. Finally, it should be recognized that placing these ideas into practice does take significant effort and involves a transition in mindset that can be challenging. This is true from the institutional level down to the individual level, but the rewards can be substantial.

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