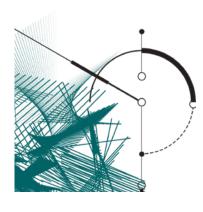
Abstract

Externally imposed assessment requirements in higher education call for documented attention to using assessment results for program improvement. Although this systematic process promises to lead to better learning outcomes it has also been challenged as ineffective and even harmful. What can make assessment truly meaningful and move beyond the accountability mandate? Our goal in the work described here has been to advance institutional capacity for a sustained, internally valued system of learning outcomes assessment. Our approach deems faculty engagement to be essential to drive the process and improve educational results. We propose a developmental perspective on assessment capacity, describe our effort to measure and promote a supportive climate for it in our own institution, and draw conclusions about what contributes the most to its advancement. Our results point to central roles for faculty peer attitudes and collaborative institutional leadership.



AUTHORS

John F. Stevenson, Ph.D. *University of Rhode Island*

Elaine Finan, M.S. *University of Rhode Island*

Michael Martel, M.A. University of Rhode Island

Measuring Assessment Climate: A Developmental Perspective

Externally mandated requirements for assessment of learning outcomes in higher education have been in place for many years, increasingly emphasizing the use of assessment results for program improvement (Banta & Blaich, 2010; Fontenot, 2012; Kezar, 2013; Kuh & Ewell, 2010; Peterson & Augustine, 2000). What is the most effective path for getting there? In this article we draw on related literatures from the field of program evaluation dealing with evaluation capacity building (ECB) and evaluation utilization to highlight one path for moving faculty from doing assessment to using assessment results. These literatures have conceptually and empirically informed our local effort to measure and promote organizational readiness for a mature assessment system. We turn assessment toward the assessment process itself—with the same aspiration to promote internally directed, data-driven improvements. This article seeks to provide a conceptual context and rationale for our approach, show how we measured "assessment climate," describe major findings, examine how we used the findings as a catalyst, and sketch some of the organizational changes we have promoted. We present our model and its application to support our claims for "what works" to build assessment capacity. We intend this to be useful for others who are working to build assessment capacity in their own institutions.

Using the Literature on Evaluation Capacity Building to Improve Assessment

As we will document below, evaluators across a wide range of settings have studied and attempted to promote "evaluation capacity," the organizational features and individual competencies associated with successful evaluation. We view assessment as a specialized form of outcome evaluation, and research on ECB provides valuable insights into the issues faced by those who engage in assessment in higher-education settings.

Challenges shared by evaluation and assessment are readily apparent in Preskill's (2014) summary of the hard work that remains to be done to clarify means for solidifying ECB in practice. Her list of challenges included: (1) moving line staff (i.e., faculty) toward

CORRESPONDENCE

Email jstevenson@uri.edu

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using data in decision making in a "culture of inquiry"; (2) building the capacity of senior leaders (i.e., top administrators) to shape and sustain a learning culture; (3) transferring newly acquired skills to long-term, sustainable practice; and (4) evaluating the success of ECB interventions themselves (i.e., enhanced faculty competencies, effective reports, curricular improvements in response to data, and sustained assessment practice).

The field of evaluation has also focused extensively on how the evaluation process can influence program improvement, with clear applicability to the assessment context (Jonson, Guetterman, & Thompson, 2014). Patton's (2008) focus on the special role of "process use" is particularly relevant for the assessment context. He defined this type of use in terms of how programs are improved by the process of doing evaluation, long before any outcome data are used to guide alterations in the program. "Evaluative thinking" is beneficial as it challenges stakeholders in the program to ask critical questions about what the intended effects of the program really are, how they could be measured, and what causal connection they have to elements of the program.

Most evaluation theories emphasize the importance of stakeholder involvement to build evaluation capacity—with accumulating empirical evidence documenting the benefits of doing so, particularly for those most directly involved in delivering the program being evaluated. Clinton (2014) showed the importance of stakeholder engagement by demonstrating its mediating effect on the impact of evaluation. Brandon & Fukunaga (2014) provided more details on the empirical support for stakeholder engagement in a systematic review of the literature, noting some problems (e.g., the importance of adequate resources for building the evaluation capacity of stakeholders) along with clear indications of the pattern of positive effects on evaluation use and influence. Botcheva, White, and Hufman (2002) incorporated the notion of "learning cultures" as an aspect of ECB. Taylor-Ritzler, Suarez-Balcazar, Garcia-Iriarte, Henry, and Balcazar (2013) tested an empirical model for personal and organizational factors affecting evaluation capacity outcomes (use of evaluation findings and incorporation of evaluation into established work processes). Taylor-Ritzler et al.'s (2013) structural equation model results suggest that favorable organizational learning capacity conditions (leadership, learning climate, resources) directly influence capacity outcomes and mediate the role of individual factors (knowledge, skills, and attitudes). In fact, in their findings there was no direct influence of individual factors (which were most likely to be affected by training and technical assistance) on manifest capacity.

Assessment Culture: Moving from Accountability to Learning

The higher-education setting evinces the same crucial role for a culture supporting faculty engagement in the assessment process and use of the results. However, becoming a "learning community" is not easy, even for institutions devoted to learning (Angelo, 1999; Axelson & Flick, 2009; Driscoll & Wood, 2007; Kezar, 2013; Kuh & Ewell, 2010; Ndoye, 2013). As in many other ECB contexts (e.g. Botcheva, White, & Huffman, 2002; Owczarzak, Broaddus, & Pinkerton, 2016; Preskill & Boyle, 2008), evaluators in higher education have struggled to move from the initial external accountability impetus for learning outcomes assessment to an internal, intrinsically motivated learning role for assessment. Fuller and Skidmore (2014) referred to a "culture of assessment" vs. a "culture of compliance" (p. 10). Jonson, et al. (2014) used the labels "improvement paradigm" vs. "accountability paradigm." Walser (2015) advocated "meeting in the middle" between the competing purposes for assessment; however, in the broader evaluation context the genuine possibility of compromise has been questioned (Patton, 2008). Leviton (2014) made this one of her challenges to ECB researchers, noting that accountability associated with external funding can distort what programs think evaluation is for, affecting the way it is viewed, valued, and conducted. Faculty are just as skeptical as staff in many other kinds of organizations about the real intent of this data collection activity as well as outraged by its effects on their already overburdened workloads (Axelson & Flick, 2009; Banta & Blaich, 2010; Blaich & Wise, 2011; Buller, 2013; Cain & Hutchings, 2015; Jonson et al., 2014; Kezar, 2013).

The factors within institutions that promote meaningful assessment have been widely discussed. Terminology for these concepts can be used in various and overlapping ways but the themes are clear. Chief among these themes is the role of a supportive culture, which

we will review in detail below. Additional factors identified as beneficial are leadership by both administrators and faculty; organizational policies and structures; mutual trust among stakeholders; and a shared vision for the goals of assessment, reflected in shared language (Angelo, 1999; Banta, Lund, Black, & Oblander, 1996; Cain & Hutchings, 2015; Kezar, 2013). Banta et al. (1996) elaborated the role of leadership, with elements including administrative commitment, represented by administrative structure and reward structure; adequate resources, including clerical support, summer faculty support, mini-grants, and technical support; and faculty and staff development opportunities.

As noted above, efforts to describe and measure aspects of the institutional and departmental environment for assessment have frequently been linked to conceptions of "culture" (Fontenot, 2012; Fuller & Skidmore, 2014; Grunwald & Peterson, 2003; Kezar, 2013; Peterson & Augustine, 2000). A focus on "assessment culture" has evolved as evaluators in the assessment context try to understand factors beyond the design of training and technical assistance (over which they usually have some control) to broader contextual forces that may facilitate or impede the desired end goal of a sustained, routinized process for improving higher education results. Fuller and Skidmore (2014) have provided a useful introduction to the concepts usually embedded in definitions and measures of culture, noting that in the United States the phrase "culture of assessment" typically refers to "the deeply embedded values and beliefs collectively held by members of an institution influencing assessment practices at their institution" (p. 10). Walser's (2015) definition aimed at an end state "... when assessment work and use is an integrated part of the college or university routine" and calls for "...faculty, staff, students, and administrators to work together" (p. 59). Sometimes the term "culture" has a broader meaning, referring to institutional precursors that are hospitable to assessment (or not), such as campus leaders' demonstrated valuing of learning from evidence; campus-wide valuing of quality of teaching, setting improvement of educational performance as a primary goal; an institutional norm embracing transparency in the service of improvement on shared goals; and valuing community, collaboration, and participation (Banta et al., 1996; Cain & Hutchings, 2015). While bemoaning the frequent vagueness of definitions of "culture" in research on assessment, Kezar (2013) generally gravitated to the broader norms-beliefs-values perspective. Her review is very helpful for demonstrating the variety of hypotheses and varied roles attributed to culture in research on assessment. She reported that organizational culture is generally found to be more important than practical, policy, and technical support for assessment in determining successful adoption. Relevant for the present study, Cain and Hutchings (2015) contrasted "culture" and "climate." They defined culture as "the long-standing way a group understands itself and its shared values," characterized as "deeply embedded and resistant to change," consistent with Kezar (2013). On the other hand, they described climate as "more immediate and changeable," involving "feelings and understandings about organizational life" (Cain & Hutchings, 2015, p. 101).

The content of a measure of assessment culture provides more definitional specificity regarding the concepts involved. Fuller and Skidmore (2014) presented a 34-item scale (agreement on 5-point Likert scales) based on the work of Maki (2010) on principles of inclusive commitment to assessment. Their exploratory factor analysis (PCA) yielded three factors labeled Clear Commitment, Connection to Change, and Vital to Institution. High-loading items for Clear Commitment included "adequately staffed assessment office" and "clear definition of assessment." For Connection to Change the strongest items were "administrators want to know about student learning" and "assessment results are used in campus publications/ speeches." The high-loading items for Vital to the Institution included "assessment is vital to the institution's future" and "assessment and teaching (sic)."

A separate, closely related line of research has focused on faculty involvement and satisfaction with assessment as dependent variables, with a number of posited predictors. Building on the work of Grunwald and Peterson (2003), Fontenot (2012) examined attitudes, concerns, and involvement of community college faculty with assessment. Her factor analysis of Attitudes yielded two factors: Benefits (e.g., "improved the quality of education at this institution") and Faculty Reluctance (e.g., "limits time," "a distraction," "fear of results").

A focus on "assessment culture" has evolved as evaluators in the assessment context try to understand factors beyond the design of training and technical assistance (over which they usually have some control) to broader contextual forces that may facilitate or impede the desired end goal of a sustained, routinized process for improving higher education results.

Promoting Meaningful Assessment with a Climate Survey

Next we turn to the development of our own measure and plans for its use.

Central to both the developmental stages and the climate scales is the conviction that formative use of assessment to improve educational outcomes calls for a major shift in perception of the role of assessment for both faculty and administrators.

Developmental Framework. To guide our work, we applied a five-stage developmental model for institutional assessment capacity (see Table 1) developed by the first author with several associates (Stevenson, 2011; Stevenson & Monteiro, 2013; Stevenson, Treml, & Paradis, 2009). The original conceptualization of the stages (Stevenson et al., 2009) was based on the literature dealing with characteristics of colleges and universities associated with good assessment practices (e.g., Angelo, 1999; Axelson & Flick, 2009; Banta et al., 1996) and more specific designations of possible stages in the development of these practices (Allen, 2004; Bresciani, Zelna, & Anderson, 2004; Wehlburg, 1999).

Although our model is specific to the assessment context, it draws on a long tradition. The literature on learning organizations (e.g., Argyris & Schon, 1978; Cousins, Goh, Clark, & Lee, 2004; Preskill & Torres, 1999) implicates the value of having a model for how improved internal processes evolve. Demonstrating the utility of this kind of approach, Rogers (2003) proposed a five-stage developmental scheme in his well-known work on diffusion of innovations in organizations. The three latter stages during implementation are most relevant for ECB: Redefining/Restructuring, during which the necessary infrastructure is developed and the innovation is adapted to fit the organization's context; Clarification, in which the internal diffusion process builds understanding of how integration can work and leads to gradual embedding across the organization; and Routinization, in which the innovation becomes an accepted, sustainable aspect of functioning. Preskill and Boyle (2008) noted the general utility of stage models, including Rogers', for understanding organizational change as an aspect of ECB.

Two particular advantages of the developmental approach are that (1) success can be defined by movement from one stage to the next, rather than only by achieving a final outcome, and (2) the strategies useful for making each step may be examined separately so that the most effective means for forward movement can be determined stage-by-stage. Classic work on individual processes of change (Norcross, Krebs, & Prochaska, 2010) has long shown the value of these two contributions. Kreiner and Herr-Zaya (2005) demonstrated the value for understanding organizational change in the ECB context, suggesting that each step may require different internal capacities and may respond to capacity building influences differently.

Planning for Use. The first author originally conceived the Assessment Climate Scale as a means to probe and prompt institutional movement from one developmental stage to the next (Stevenson et al., 2009). Hence the more long-term connotations of "assessment culture" seemed less appropriate than the malleable conception of "climate." Central to both the developmental stages and the climate scales is the conviction that formative use of assessment to improve educational outcomes calls for a major shift in perception of the role of assessment for both faculty and administrators. This conception calls for a move from the initial external-accountability impetus present on many campuses, with its threat of summative use and potential for superficial measures, to internal recognition of pedagogical relevance by faculty—a "culture of evidence" in Kuh and Ewell's (2010) terms. The scale drew on the pool of knowledge regarding faculty attitudes and beliefs that might inhibit or promote change toward the kind of idealized assessment culture described by Walser (2015), and anticipated Kezar's (2013) conclusion that norms, beliefs, and values will prove more important than structural progress in moving toward that goal. Our scale is not intended to measure broad cultural precursors of successful assessment, nor institutional evaluation capacity, nor is it a needs assessment. Its premise is more like that of action research (Fals Borda, 2001), aiming to speak faculty's perceived truths to those with power—power to communicate genuine belief in the value of an ideal assessment culture and support forward movement with policies, recognition, and resources.

Table 1

Building a Culture of Assessment: Developmental Stages

Stage	<u>Description</u>				
Stage 1: Denial	"No one really cares about this and we all have more important things to do; it's a passing fad."				
Stage 2: External	Administration: "We have to!"				
Demand	Faculty: "You have to!" (denial still rampant for faculty)				
	Fear/defensiveness				
	Top-down pressure reduces sense of intrinsic value, "buy-in"				
	Few resources of any kind devoted to assessment (workload recognition, faculty time, direct funding, staff time, technology (portfolio, web, IR, etc.), training in skills, supportive administrative structures)				
	Faculty concern about trivialization of learning (reductionist, privileges surface learning, factory model, consumer model)—both genuine and defensive				
	Administrators starting to send faculty to conferences, consider needs, build capacity				
Stage 3: Tentative	Early adopters on board (administrators and faculty)				
Commitment	Strong leadership at the administrative level (key person)				
	Initial internal structures (faculty advisory committee, staff resource)				
	First round public statement of learning objectives by programs is initiated				
	A few faculty accepting responsibility, working with administrators				
	Accredited programs ready to go				
	Capacity-building (e.g., conferences, workshops) starting to pay off; more awareness of non-trivializing approaches to assessment				
Stage 4: Full-scale	Clear expectations and incentives at the program level—uniform, visible, insistent				
Effort	Regular monitoring of assessment progress by program, department, college, university				
	Positive rewards for "completing the loop," recognizing needed improvements and acting on that recognition				
	Critical mass of faculty and chairs accept necessity				
	Growing recognition of potential pedagogical value of the process (intrinsic motivation)				
	Formalization of support structures and decision-making structures with necessary resources				
	Models available, peer support and mentoring built in				
	Attention to ways of incorporating into strategic planning, aligning with overall mission and vision of the institution, connecting to college deans' concerns				
	Web visibility at department, college, and university levels				
Stage 5:	Late adopters and resisters targeted				
Maintenance and Refinement	Mature resources and structures allow longitudinal tracking of outcomes				
Kennement	Pioneers ready for more sophisticated efforts at alignment, taking risks in questioning the premises in their learning outcomes				
	Leadership at every level sees the genuine value and is committed to providing the resources on a stable basis				

Method

Sample

We chose department chairpersons as respondents. At our institution, chairs function as a kind of "bridge" between faculty and administrators. The administration (college deans and provost) holds them directly accountable for producing assessment reports from their departments. The new pressure on faculty workload for assessment-related activities has rapidly grown, including a number of time and competency demands: convening with colleagues to define learning outcomes for their degree programs; developing a curriculum map linking their courses and other degree requirements to those outcomes; developing ways to quantify student learning (e.g., grading rubrics); administering, scoring, and reporting on department-generated means for evaluating student work in their courses; meeting to discuss the results with colleagues and determine recommendations for future action; following up with implementation of pedagogical and curricular changes; and re-assessment. As these expectations were promulgated from the provost's level via a newly created assessment office and a joint faculty-administration committee, chairs were expected to convey the demands

and their rationale to their colleagues. Thus we saw the chairs' perspective as a particularly informative one to track the development of a mature assessment system over time, and to prompt consideration of needed changes in policies and practices for assessment.

We invited all department chairs (and the directors of department-equivalent academic programs) to participate in this survey in Fall 2009, Fall 2012, and again in Fall 2015. In 2009, 30 of 51 responded (58.8%); in Fall 2012, it was 36 of 61 (59.0%); and in 2015 it was 28 of 49 (57.1%). In order to preserve anonymity in the data set, we did not include respondent descriptors (e.g., college, gender, rank) in the survey. In 2015, 18% of the chairs indicated that they remembered taking one or both of the prior surveys, suggesting a high degree of turnover.

Survey Design

Content of the survey is organized into six major domains: (1) chairs' personal attitudes toward assessment, (2) institution-wide faculty norms regarding the value of assessment, (3) leadership commitment, (4) infrastructure support for assessment, (5) department-level implementation, and (6) university-wide implementation. Response choices range from 1=strongly disagree to 5=strongly agree. A final structured item addresses chairs' perception of how far the institution has come in the development of a useful, sustainable assessment system, using the five-stage model described in Table 1: (1) denial ("It's a passing fad"), (2) external demand ("The administration says we must; give us the time and resources or do it yourselves"), (3) tentative commitment ("Leaders are committed and some of us are too"), (4) full-scale effort ("Most of us accept the necessity and there are policies and resources available to help"), and (5) maintenance and refinement ("We see the value and regularly use the results at all organizational levels"). The original 2009 survey consisted of 37 items; we added seven items for the 2012 version for a total of 44 items; and in 2015 still further revisions were made, leading to a total of 51 items. The added items addressed changing facts on the ground at our institution. We provided an open-ended space for qualitative comments in all three years (see Table A in the Appendix for the current version of the instrument).

Procedure

We administered the survey online via Survey Monkey, with an invitation to participate and IRB assurances accompanied by an e-mailed link, followed by a brief introduction at the beginning of the survey explaining its purpose and defining key terms. We chose mid-October as a promising time in the annual calendar of chairs' duties, and the survey was thus administered during that time-frame for each of the three iterations. Chairs were given three weeks to respond, with two reminders sent during that period.

Survey Results

Item-level Responses

We tested significance of changes over time at the item level with one-way analyses of variance (see Table A). These provide evidence that the chairs perceived forward progress on some important issues. Chairs responding in 2015 were less likely to agree that faculty resist assessment for fear of negative consequences (item #9). Chairs in 2015 were more likely to agree that faculty value transparency (item #10), that the university tracks assessment evidence and results (item #19), and that the university is defining, measuring, and reporting university-wide learning outcome objectives on a regular basis (item #47).

Other item-level results indicate perceived movement in a negative direction regarding the value of assessment. In 2015 there was significantly lower agreement that college deans recognize and support assessment (item #14) and that programs that do not comply with assessment reporting requirements will receive negative consequences (item #22).

The last item on the survey (#51) measured what the chairs thought about the university's current stage in the establishment of program-level assessment. Figure 1 graphically displays the modal response, Stage 2, "External Demand," indicating that administrative leaders require faculty compliance to meet assessment demands without added support for faculty. This was selected by 50.0% of the respondents. The second highest choice was for

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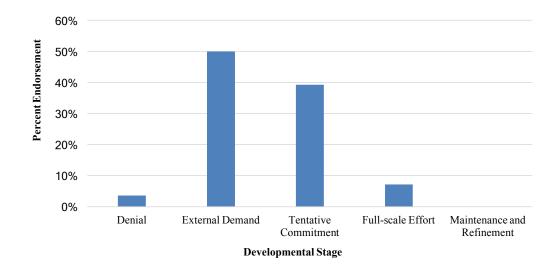


Figure 1. Assessment Climate Survey (2015): Responses to Question 51, "In which stage in the development of learning outcomes assessment would you judge this institution to be?"

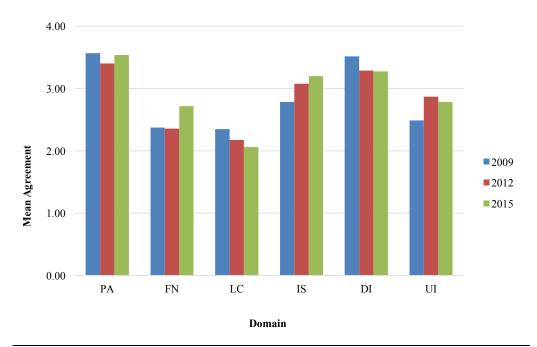


Figure 2. Assessment Climate Survey Domain Scale Averages: 2009, 2012, 2015. Domain scales are Personal Attitude toward Assessment (PA); Faculty Norms (FN); Leadership Commitment (LC); Infrastructure Support for Assessment (IS); Department-level Implementation (DI); and University-wide Implementation (UI).

Stage 3, "Tentative commitment," indicating chairs' sense that faculty are starting to join with campus leadership in institutionalizing assessment, selected by 39.3% of the respondents. No one endorsed Stage 5, "Maintenance and refinement."

Domain Scale Patterns

Figure 2 presents results for the six domain scales, with means calculated on the basis of relevant items available for all three time points (averaging agreement with positively worded items and disagreement with negatively worded items, which are denoted "R" in Table A). Table 2 provides some statistical information about the domain scales based on the 2015

Table 2

Assessment Climate Domain Scale Properties and Correleations for 2015 Sample

	No. of					Inter-	scale Cor	relations	
Domain Scales	Items	Mean	<u>S.D.</u>	Alpha	<u>FN</u>	<u>LC</u>	<u>IS</u>	<u>DI</u>	<u>UI</u>
Personal Attitude toward Assessment (PA)	6	3.34	.674	.694	.590**	.353	.523**	.538**	.555**
Faculty Norms (FN)	6	2.71	.561	.677	-	.231	.432*	.354	.277
Leadership Commitment (LC)	10	2.21	.555	.747		-	.532**	.097	.529**
Infrastructure Support for Assessment (IS)	10	3.07	.554	.814			-	.204	.505**
Department-level Implementation (DI)	9	3.29	.726	.785				-	.144
University-wide Implementation (UI)	8	2.84	.442	.613					-

Note. N = 28. *p < .05, **p < .01

responses, including Cronbach's Alpha reliabilities and inter-scale correlations. The scales have Alphas ranging from .61–.81, suggesting some degree of internal consistency, although they were lower than we would have liked for University-wide Implementation, Personal Attitude, and Faculty Norms. Personal Attitudes correlated positively with all other scales except Leadership Commitment. Leadership Commitment was strongly correlated with Infrastructure Support and University-wide Implementation (p<.01). Infrastructure Support was positively correlated with all of the other scales except Department-level Implementation. Intriguingly, Department-level Implementation was not significantly correlated with University-wide Implementation.

Table 3 reports analyses of domain-level patterns of change over time. Two of the scales achieved statistical significance in one-way analyses of variance. The chairs' perceptions of faculty norms supportive of assessment went up significantly in 2015 and perceptions of University-wide Implementation increased significantly between 2009 and 2012 and remained at that level in 2015. The patterns over time clearly indicate that chairs consistently viewed the value of assessment for their own departments as relatively high and believed infrastructure support for assessment was steadily rising. Significant item-level changes reported above are consistent with those trends, and several item-level analyses in the Infrastructure Support domain also approached significance in the positive direction. On the other hand, Leadership Commitment remained the lowest domain score and continued a downward trend from past administrations. The significant item-level changes within that domain reflected the negative trend.

Table 3
Significance of Domain Scale Change by Mean Agreement over Time

Scale	Mea	<u>F</u>	<u>df</u>	<u>p<</u>		
Scale	<u>2009</u>	<u>2012</u>	<u>2015</u>			
Personal Attitude toward Assessment	3.57	3.40	3.54	.501	91	n.s.
Faculty Norms	2.37	2.36	2.71	3.94	91	.023*
Leadership Commitment	2.35	2.17	2.06	1.98	91	n.s.
Infrastructure Support for Assessment	2.78	3.08	3.20	2.22	91	n.s.
Department-level Implementation	3.51	3.29	3.27	.891	91	n.s.
University-wide Implementation	2.49	2.87	2.78	3.98	91	.022*

Note. Mean agreement calculated for items included at all 3 time points.

The patterns over time clearly indicate that chairs consistently viewed the value of assessment for their own departments as relatively high and believed infrastructure support for assessment was steadily rising.

^{*}p < .05

We also examined the relationship between the six domain-based scales and the chairs' perceived stage of institution-wide assessment (item #51) for the 2015 responses, using data for the four stages with responses. A stepwise discriminant function analysis (DFA) indicated that Leadership Commitment was clearly playing the dominant role in determining judgment of stage. A single function solution with an Eigenvalue of .736 located Stage 1 and Stage 2 very close together and spread Stage 3 and Stage 4 further along the single dimension (Wilks' Lambda = .576; $X^2 = 13.52$; p<.004; 50.0% of the cases classified correctly). With a more liberal F-to-enter, the first function (Eigenvalue 1.152; canonical correlation of .732, explaining 83.3% of the variance) again featured Leadership Commitment with a loading of .855, followed by Faculty Norms (loading .627). Once more the first two stages were literally on top of each other with stages 3 and 4 spread out along the first dimension (Wilks' Lambda = .375, $X^2 = 23.05$; p<.006; 60.7% of the cases correctly classified).

One theme was very persistent: the workload burden remained a severe impediment, even for those who saw value in the work.

Qualitative Responses

We analyzed qualitative responses to the final open-ended item of the survey, inductively developing themes, and found some shifts over time in those responses. After 2009 there was less concern about technical support, and by 2015 there was more recognition of assessment's value. One theme was very persistent: the workload burden remained a severe impediment, even for those who saw value in the work. The chairs' sense that the burden was compounded by a sense of the task's futility did diminish over time. It also appeared that there was some positive anticipation of the potential value of assessment: in 2009, it was recognized as an expectation for new programs (an accountability motivation); by 2015 there was more grasp of the potential for internal use and consistency with faculty values, although those were offset by the frustration with lack of workload relief, recognition, or reward.

Discussion and Action Steps Taken

Using the Results to Prompt Action

We began our work with an "action research" conception of the survey as a means for promoting reflection and change within our institution, and we discuss our results in that context. Our survey design was improved by an early and ongoing relationship with the campus assessment office, which also actively promoted attention to the findings. The survey process itself was an intervention, influencing chairs' views regarding assessment by highlighting the availability of resources and portraying potential for internal utility. Turning to our use of the survey results, after each administration we presented the findings to various decision-making groups in a "good news-bad news" framework, drawing on prescriptions from the literature. The rationale for the survey was clearly stated in our internal reports:

"As an organization developing the capacity to conduct and learn from programlevel assessment of student learning outcomes, our institution is investing resources and implementing policies for assessment. The survey gives us something with which to benchmark our progress over time and identify strengths and weaknesses in our overall progress. The findings can inform policy and resource allocation decisions as we go forward."

Limitations

The limitations of our methodology were acknowledged at the outset of our internal reports, anticipating possible resistance to the findings by some decision makers. These limitations include: (1) the sample size is small, reflecting our choice of chairs as the population of interest, making statistical significance more difficult to achieve; (2) the response rate is not as high as we would have liked, although it is not out of line with other similar survey contexts; and (3) the overlap between samples over time presents a statistical issue, and the effort to preserve anonymity in order to increase trustworthiness of responses, as well as the high turnover rate, make it impossible to consider a "repeated measures" approach to analyses of change over time. Thus it is best to consider each year's quantitative results as a cross-sectional snapshot of what a majority of chairs thought at that time, with the qualitative

We concluded that supportive infrastructure enables but does not motivate. The demand was increasingly clear to the chairs but the leadership's genuine commitment to properly support the work and use the findings was not.

comments as a "triangulating" set of evidence. Moving beyond the internal perspective on limitations we note that the generalizability of our scale and its findings to other academic settings remains uncertain, particularly for institutions of varying sizes and purposes. Our own setting is a mid-sized public research university. We believe that locally tailored variations will make the approach we describe here maximally effective. The scale's dimensions and the developmental stage model guiding it are more generalizable, as we drew them from many published sources cited above.

Good News-Bad News

To convey the significance of our findings, the "good news" we presented in our most recent internal report included the high level of chairs' own reported valuing of assessment, which remained the highest domain scale score across all three time points, with department-level implementation remaining second highest. Infrastructure support, including things like faculty training, models for what is expected in reports, clear policies for reporting, an office providing many forms of assistance, and a useful website, was the third highest domain and shows a steady positive trend over time. We concluded that we appeared to be on the right track for providing what is needed to make assessment both feasible and useful.

Chairs' view that faculty norms were supportive of assessment made a significant upward jump in the 2015 results. More chairs agreed that faculty value transparency, including open discussion of learning outcomes; fewer agreed that their colleagues believe assessment is unrelated to a concern for student learning or that faculty resist assessment due to fear of negative findings. Agreement that the institution's faculty is committed to the goal of having every student graduate with abilities and values consistent with the mission and strategic plan went up fifteen points between 2009 and 2015. This suggests that chairs saw their own colleagues moving toward more acceptance of the necessity of engaging in these activities, and more recognition of the value of doing so. Our presentation of those positive conclusions treated them as confirmation of meaningful progress, consistent with recommendations in the literature cited above.

We followed with some "bad news," also based on the comparison of our findings with recommendations in the literature. Leadership Commitment remained the lowest domain score and continued a downward trend from past administrations. Significant downward itemlevel changes (in support from deans and a lack of negative consequences for noncompliance) provided more concrete substantiation of that concern. Increased administrative tracking (#19) may not be seen as a positive thing if it is just considered "bean-counting" (as one qualitative comment suggested).

Most dramatic from our standpoint was where chairs believed the university was in terms of developmental stage of growth in assessment capacity. Stage 2, "External Demand," with administrative leaders requiring faculty compliance to meet that demand, was not what we expected to be the modal response. In prior administrations we had not included that final item, believing that we could derive conclusions about stage from the domain scales. Clearly we were wrong, as we had previously judged the university to be between Stage 3 (tentative commitment) and Stage 4 (full-scale effort) based on the chairs' own positive attitudes, their perceived level of implementation within their own programs, and their perceptions of the improving infrastructure. The Discriminant Function Analysis helps with understanding what was going on: leadership commitment was the most powerful indicator for chairs of whether the institution was really moving toward an assessment system that is internally valued at all levels. The qualitative responses, although from a small subset of the respondents, amplified the level of frustration with administrative leadership. We concluded that supportive infrastructure enables but does not motivate. The demand was increasingly clear to the chairs but the leadership's genuine commitment to properly support the work and use the findings was not.

We presented all of those findings in a series of decision-making contexts: first within the university's assessment office, where data analysis took place and some thoughts about possible recommendations were generated; then to the university-wide assessment committee with representation from both administration and faculty; later as one part of an agenda for

a series of meetings arranged by assessment office staff with each college dean; and lastly to the "Deans' Council," which is chaired by our provost. Formats for presentation varied. We engaged the university assessment committee in an active discussion with graphic presentation of major quantitative results, the qualitative comments, and skeletal recommendations used to stimulate ideas for new policies and practices. The deans and provost got an "elevator talk" executive summary and a few recommendations in an attempt to generate ideas for next steps. Following those presentations, we conveyed a final complete report with more detailed recommendations to the chairs themselves.

Actions Taken

Most of the tangible changes we can point to were generated by the university assessment committee. Their deliberations in response to the results led to (1) an annual recognition event honoring assessment reports that meet specified peer-review criteria, (2) agreement on the need to offer peer models showing how assessment can be both meaningful (internally useful) and manageable (feasible with limited resources), and (3) clearer emphasis on assessment reporting and use in the cyclic academic program review process, which provides an opportunity for departments to negotiate for resources and demonstrate their accomplishments. In one large college the dean's recognition of the survey's implications led to creation of a new college-level committee to focus on supporting and tracking departmental assessment activities.

Two complements to the survey release process bolstered its impact. One was a change in assessment policy to reduce the reporting burden for degree programs with their own external accreditation reporting requirements. The other was the developing plan for assessing a new general education program, launched in the fall of 2016, which imposed university-wide learning outcome requirements. The assessment needs for that new program are driving a new set of resources and training activities, new technical advances in data management for assessment, and rapidly expanding faculty awareness of how assessment "works." It remains to be seen, however, whether the leadership for this transformation will be able to emphasize "learning culture" over "accountability culture."

Conceptual Implications of the Findings: Stage Progression

Leaders of campus assessment, both faculty and administrative, put an intensive amount of effort into developing assessment policies, necessary governance structure, a variety of training opportunities and on-line resources, and various types of incentives (e.g., mini-grants, off-campus conference opportunities). It is not surprising that they would expect "infrastructure support" accomplishments to give chairs a sense of the remarkable progress the university is making. However, our results confirm and elaborate what others have found before us: leadership and campus culture provide the impetus for integrating assessment into a meaningful process of program improvement. Taylor-Ritzler et al. (2013) contrasted individual capacity building with institutional leadership and organizational culture, showing that in their data individual factors only had influence via the mediating role of those organizational factors. In the higher-education context, Kezar's (2013) review found "organizational culture" and "leadership" to be consistently recognized as primary sources of constraint and facilitation, followed by "organizational policies, practices, and structures." Her discussion of campus culture posited "clarity and commitment of leadership" as a force for transforming culture. Based on her analysis, leaders appear to have pervasive means to influence the assessment process.

As previously noted, one of the helpful aspects of a stage perspective is that it allows for identifying differing capacity-building strategies as most effective in different stages. The university studied in this case example seems to be "stuck" in some ways despite notable progress on faculty attitudes and infrastructure to support assessment. It may help to consider whether differing emphases might help it to move forward developmentally. We have local evidence from several years of peer-reviewed assessment reports showing that most degree programs are now compliant with requirements and doing a reasonable job of meeting them (Finan, Stevenson, Monteiro, & Martel, 2015). However, the *Climate Survey* adds some

However, our results confirm and elaborate what others have found before us: leadership and campus culture provide the impetus for integrating assessment into a meaningful process of program improvement.

key stakeholder perspective on how the process is perceived, the extent of true integration into decision making, and the perceived barriers. The qualitative comments are especially telling for the chairs' frustration with a mandate for activity without academic value. And yet the value seems obvious to evaluators: programs are routinely learning from their students about what is working well (and can be celebrated) and what is not (and calls for some experimenting with altered pedagogy and/or curriculum). Evaluative thinking in the form of "curriculum maps" that link program requirements to intended learning outcomes can drive the assessment process. Perhaps the early emphasis on infrastructure development, policies, and training have moved the accountability mandate forward (to Stage 2/3) at the expense of a recognition that the purpose is truly aligned with what faculty themselves value. As in other evaluation contexts, evaluators may see "empowerment" where those who are doing the work see "exploitation" (Stevenson, Mitchell, & Florin, 1996).

What can move our institution past that developmental impasse, to Stages 4 and 5? Cain and Hutchings (2015, p. 96) advocated paying close attention to "how assessment is talked about" and linked to faculty values and expertise. Fuller and Skidmore's (2014) "Connection to Change" factor seems especially relevant for our predicament, and Angelo's (1999) prescription identified shared motivation and shared language as essential pillars for the transformation process. Owczarzak et al. (2016) and Jonson et al. (2014) warned of the dangers of leadership focus on accountability, and Leviton (2014) questioned whether leaders always share evaluators' rosy view of the value of "evaluative thinking." Owczarzak et al. (2016) also offered some helpful suggestions for progress that can have relevance for the higher-education context, including the use of peer-nominated experts to provide ongoing consulting, and accessible qualitative narratives documenting how assessment can work for departments. An important point made by several authors including Kezar (2013) is that faculty leaders are as important as administrative leaders. Respected peers can influence the perception of norms, and provide models for positive use. We recognize now that our survey should have done more to explore that aspect of leadership and will do so in the future.

For some challenges it is difficult to find a prescription. Workload burden reduction and staff turnover (especially in key roles like chair) remain difficult to address.

Conclusions

From the perspective of the chairs in our study it was not faculty acceptance nor even the enabling infrastructure that was most important for determining how close we were to a fully realized assessment culture. The most important domain in our climate framework was the communicated support from administrative leaders and their commitment to motivate assessment as an internally useful process. Those were the keys to a sustained quality-improvement system. We conclude that interventions to improve infrastructure and assessment competencies are needed on a continuing basis but they will not lead to the desired goal without clear messages and incentives from leaders. Heed Leviton's (2014) advice: understand what top managers believe about the value of assessment, and watch out for the distorting effects of an accountability culture. Getting from grudging compliance to enlightened conversation takes leadership that believes in transparency, learning from evidence, and collaboration.

We view our measure as a means to the end of moving the developmental process along, and attempted to leverage the results of our periodic surveys via the policy-making channels of the institution. Campus assessment policies are now evolving from efforts to clarify expectations, provide training and consultation, and establish peer review feedback, toward greater recognition for success, models for good practice, and integrated academic program review policy. The latter has resource implications for departments and aligns departmental objectives with the college and university mission. This marks it as a particularly hopeful sign. We continue to aspire to promote collegial conversations informed by data as well as academic values, leading to creative insights regarding pedagogy and curriculum. This enterprise may best be served by the continuing recruitment of highly respected faculty leaders. Advancement of genuine enthusiasm for the effort involved will also take a broader initiative to enhance transparency, trust, and confidence that contributions to assessment will be recognized, rewarded, and respected as time-consuming professional achievements.

We conclude that interventions to improve infrastructure and assessment competencies are needed on a continuing basis but they will not lead to the desired goal without clear messages and incentives from leaders.

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Appendix

Table A

Assessment Climate Survey Items and Results

Instructions: Please answer each question by clicking on the appropriate response. Where you are unsure of an answer please provide your own impression. In this survey the term "assessment" is used to refer to the series of steps in defining and measureing students' learning outcomes in order to draw useful conclusions about the effectivenes of educational programs (e.g. majors) in achieving their intended outcomes and to act on those conclusions. In this context these "learning outcomes" would be defined at the program level and be measured in ways that reflect the program faculty's intentions.

Items in Domains	Mea	Mean Agreement ¹			
	2009	2012	2015		
Sample size (N=)	30	35	28		
I. Personal attitude toward assessment	•				
Assessment of learning outcomes for our majors is very important.	3.90	3.69	3.46		
2. Assessment of learning outcomes does not yield useful results. (R) ²			2.64		
3. General education outcome objectives are complementary to our objectives for the major.	3.20	3.58	3.43		
4. Assessment should be the job of the administration, not the faculty. (R)	2.77	2.60	2.32		
5. Assessment of student learning outcomes is here to stay.	3.80	3.40	3.75		
6. We faculty need to keep checking ourselves to improve the chances that our students graduate with the skills and attitudes we believe they need.	4.17	3.89	4.36		
II. Institution-wide faculty norms					
7. Most departments here are now taking assessment seriously.	2.93	3.19	3.04		
8. Most faculty on this campus believe assessment is unrelated to genuine concern for student learning. (R)	3.52	3.69	3.29		

¹ Ratings are from 1 (=strongly disagree) to 5 (=strongly agree). Superscript letters (a, b, c) are used to indicate significant differences (p<.05 2-tailed) between means across years.

² Reverse-keyed items for scoring the domain scales.

9. Many faculty resist assessment because they fear negative assessment findings that could damage individuals or programs. (R)	3.67 ^a	3.53 ^a	2.64 b
10. At this institution, faculty highly value transparency, including open disclosure of our students' learning outcomes.	2.70 a	2.69 a	3.29 ^b
11. The faculty at this institution are committed to the goal of having every student at the university graduate with abilities and values consistent with our university's mission and strategic plan.		3.37	3.61
12. At this institution, assessment of student learning outcomes has become a highly valued, consistently practiced, aspect of our culture.	2.33	2.17	2.29
III. Leadership commitment			
13. The administration supports assessment, from the Provost on down.	3.17	3.03	2.96
14. Our college dean/associate dean recognizes and supports the value of assessment.	4.07 ^a	3.72	3.36 ^b
15. Our college dean/associate dean discusses our departmental assessment reports with us.			2.46
16. There are no rewards or incentives for chairs or program directors participating in assessment. (R)	4.07	4.42	4.32
17. There are no incentives for faculty to participate in assessment (e.g. annual review recognition). (R)	4.00	4.50	4.07
18. There are few administration-provided resources for assessment. (R)	4.00	4.17	3.75
19. The administration keeps track of programs' assessment activities and results.	2.07 ^a	1.92 ^a	2.79 ^b
20. Adequate time is provided for those who are asked to do the work of assessment.	2.97	3.43	2.43
21. Programs that excel at assessment are formally recognized at the institution-wide level.			3.14
22. Departments that choose not to assess their programs will experience negative consequences.	3.62 a	3.44 ^a	2.07 ^b
IV. Infrastructure support			
23. Faculty and chairs have easily accessible opportunities to learn about how to conduct useful assessment.	2.73	2.89	3.00
24. Expectations for what is to be done and reported for program assessment are clear.	2.33	2.47	2.61
25. A clear policy for a 2-year cycle of assessment reporting is now in place.		3.17	3.36

26. There is adequate training provided for those who are asked to do the work of assessment.	2.17	2.53	2.79
27. There are models for what is expected in an assessment report.	2.79	2.86	3.29
28. The two-year reporting cycle works well for my department.		2.75	2.32
29. Departments receive useful feedback on our assessment reports.		2.94	2.61
30. There is an office on campus that provides assistance of many kinds for assessment.	3.40	3.92	3.86
31. There is a helpful website on campus addressing assessment progress and expectations.	2.93	3.25	3.50
32. There is a policy-setting committee to guide assessment on this campus.	3.10	3.58	3.36
V. Department-level implementation		L	ı
33. My department has workable assessment plan(s) for our undergraduate program(s).	4.04 a	3.08 °	3.71 ^b
34. My department has workable assessment plan(s) for our graduate degree program(s). (Please skip if not applicable for your department.)		2.54 ^a	3.57 b
35. Our majors are aware of our department's learning objectives.	3.33	3.09	2.71
36. My department has conducted and reported one or more rounds of assessing learning outcomes for our undergraduate major(s).	4.00	4.37	4.11
37. My department has conducted and reported one or more rounds of assessing learning outcomes for our graduate major(s). (Please skip if not applicable for your department.)			3.43
38. My department uses assessment results in strategic planning.	3.40	3.06	2.86
39. Faculty in my department have discussions about our students and our hopes for them in the context of assessment.	3.27	3.17	3.29
40. My department has changed our curriculum design (requirements, courses, course content, etc.) in response to assessment results.	3.57	3.00	2.96
41. My department has made changes in how courses are taught (pedagogy) and what is covered in them on the basis of assessment results.			3.04
VI. University-wide implementation			
42. A majority of <u>undergraduate</u> majors across the campus have now gone through at least one cycle of assessment to reporting to program revision (sometimes termed "closing the loop").	3.03 ^a	3.56 b	3.44

43. A majority of graduate majors across the campus have now gone through at least one cycle of assessment – reporting - program revision.			3.28
44. Departments share ideas with other departments/programs for meaningful, manageable assessment.			2.18
45. Strategic planning at the university level uses assessment results.	2.36	2.77	2.50
46. Learning outcomes for degree programs are aligned with the broader missions of colleges and the institution.			3.07
47. University-wide objectives for students' learning outcomes are specified, measured, and reported on a regular basis.	2.10 a	2.51	2.71 ^b
48. Our general education program has clear, measurable outcome objectives.	2.41	2.51	2.50
49. General education addresses important learning goals at this institution.		3.59	3.11
50. My department is willing to contribute to the assessment of general education.		2.97	3.18

51. In which stage in the development of learning outcomes assessment would you judge that this institution is?

Denial ("It's a passing fad"): 3.6%

External Demand ("Administration says we must; we say give us time and resources or do it yourselves!"): 50.0%

Tentative Commitment ("Leaders are committed; some of us are ready to follow"): 39.3%

Full-scale Effort (A critical mass accept the necessity; policies and resources are in place to help): 7.1%

Maintenance and Refinement ("We see the value and regularly use the results at all organizational levels"): 0.0%

52. This survey was previously administered to department chairs/directors in October 2009 and October 2012.

Do you believe you took the survey at that time [either of those times]?

	Yes	Not Sure	No
2012	25.7%	17.1%	57.1%
2015	17.9%	35.7%	46.4%

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