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Tensions in Teacher Preparation: Accountability, Assessment, and Accreditation

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Editors



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PREPARATION:
ACCOUNTABILITY,
ASSESSMENT, AND
ACCREDITATION**

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INVESTOR IN PEOPLE

CHAPTER 9

DEVELOPING DATA SYSTEMS FOR CONTINUOUS IMPROVEMENT UNDER THE NCATE STRUCTURE: A CASE STUDY

Elaine Ackerman and John H. Hoover

ABSTRACT

The history of continuous improvement, particularly requirements to close the feedback loop, was explored through an analysis of experiences at St. Cloud State University (SCSU). A method for generating evidence of the use of assessment data is provided. Several program improvements tied to this example were cited, including increasing the number of program area reports, adding to the number of qualitative studies, and strengthening advisement. Difficulties encountered with the system included institutionalizing the approach, response rates, and workload issues.

The concept that leaders of nimble public organizations ought to employ data to improve services and outcomes originates in the business world (Norman, 2001). Because of this, its utility in higher education can and should be carefully debated. Yet, it makes enough sense that we will not

participate in that exercise here, but start from the assumption that continuous improvement (CI) and data-centered management is a reform that is here to stay. We also assume that the documentation of data use in program improvement, the closing of the loop, is an essential feature of CI (Soundarajan, 2004).

Over the past decade and a half, accreditation agencies have argued for twin reforms related to CI. First, National Council for Accreditation of Teacher Education (NCATE), among other oversight organizations, has mandated that teacher education programs collect, analyze, and report outcome data and that CI should thus become part of the institutional climate. Furthermore, the use of data in a CI cycle would be included in criteria upon which accreditation would be based (NCATE, Strategic Goals and Objectives and Current Issues, n.d.). Second, once data are collected, a legitimate issue is one of use, perhaps best organized around the following two questions:

- Are data regularly and systematically employed in making programmatic decisions?
- How best can program developers collect, analyze, summarize, and report evidence that data are being considered, much less employed, in decision-making?

In this chapter, we offer a case study on a system for managing CI within the NCATE system. Put more plainly and in keeping with the volume's theme, we will examine the complexities attending the development and institution of such a system. We could not convincingly argue that the system for assessing the use of data described in these pages is firmly established in St. Cloud State's College of Education. As is true of all such efforts, data use and documentation of such application remain under construction.

From the outset, we should lay out another shared bias: Namely, that the call for what might be termed "meta assessment," or perhaps "assessing the assessment" is legitimate and necessary to program improvement (Banta & Palomba, 1999). Thus, the chapter is intended to describe a pathway, and some of the obstacles on the trail toward practices meant to assist assessors, leaders, and program developers in tracking data use. We generate observations and generalizations that we hope will assist others in addressing the employment of data in program development.

THEORETICAL BACKGROUND OF DATA USE IN CONTINUOUS IMPROVEMENT

NCATE's Mandate for Continuous Improvement

In 2001, NCATE implemented a performance-based system of accreditation. This system requires institutions to provide evidence of competent teacher candidate performance. The new performance-based system was predicted to enhance accountability and to produce improvements in educator preparation (NCATE, 2002a, 2002b). In addition, NCATE language is replete with suggestions that performance-based data must be considered and employed in making decisions about programmatic effectiveness and in generating improvements in services to candidates (c.f. NCATE, 2002a, 2006).

Standards developers frequently refer to the collection of performance data, for example, under standard one, a portion of the acceptable-level rubric stipulates that "Eighty percent or more of the unit's program completers pass the academic examinations in states that require examinations for licensure." Under the target level of performance for standard one, we learn that completers must "pass the academic content examinations in states that require examinations for licensure" (NCATE, 2006, p. 14; Professional Standards, PS).

In a requirement seen as exceedingly difficult at some institutions because of its putative removal from direct in-house control, NCATE requires that program leaders demonstrate that candidates affect the learning of students in the schools: "Teacher candidates accurately assess and analyze student learning, make appropriate adjustments to instruction, monitor student learning, and have a positive effect on learning for all students" (student learning, language from the target level of performance, NCATE, 2006, p. 16; Professional Standards).

Another issue recently on NCATE's radar is that unit assessors seek performance evidence that data are not just collected, but that these data are employed in decision-making. The expectation exists, in other words, that a system must be in place that tracks whether or not, or to what degree, data are disseminated, considered, and that they contribute to program improvement or administrative change. In fact, in the SCSU unit, we operated on the assumption that closing the data loop for CI lay at the heart of Standard 2 (Assessment, NCATE, 2006, pp. 21-24; Professional Standards). "The unit has an assessment system that collects and analyzes

data on applicant qualifications, candidates, and graduate performance, and unit operations to *evaluate and improve the unit and its programs*" (p. 21, our emphasis). Despite the rather odd sense of personification in the written standard, the leadership in our unit well understood it to mean that a system needed to be developed that would document that data were (a) disseminated to program leaders and (b) considered in program evaluation. Note clarifying language from the 2006 manual:

- The unit's system includes a comprehensive and integrated set of evaluation measures that are used to monitor candidate performance and *manage and improve operations and programs* (NCATE, 2006, p. 21).
- Meeting this [assessment] responsibility requires using information technologies systematic gathering and evaluation of information and *making use of that information* to strengthen the unit and its programs (p. 23).
- Program review and refinement are needed, over time, to ensure quality (p. 23).

NCATE's standards developers conclude the section on assessment with a series of bulleted statements describing features of effective programs, one of which is, "the unit uses results from candidate assessments to evaluate and make improvements in the unit, and its programs, courses, teaching and ... clinical experiences" (NCATE, 2006, p. 24). These same standards are promulgated, in even stronger language, in instructions to accreditation team members (*Handbook for Accreditation Visits*, NCATE, 2002a; also note that [evidence for] "use of data for program improvement" is provided in the current online template for examiners (NCATE, 2002b; *Board of Examiners Template*).

The salience of CI is summarized in a 2003 description of effective assessment in teacher education by an NCATE study team (Elliot, 2003, p. 9). Under criterion 4, program representatives must provide evidence that assessment is employed in rendering, "meaningful decisions ... including ones that ... evaluate courses programs or units" (p. 9). In the same publication, Elliot reported that in examining 29 samples of institutional data, committee members were hard-pressed to find evidence that "results are combined with other data to evaluate program and unit effectiveness" (p. 5).

Despite the fact that the professional standards and programmatic expectations are constantly under revision (we assume, in the case of NCATE, that changes in accreditation standards and practices *also* result from consumer data), it is unlikely that the impulse to monitor the use of

data in program improvement will change. Both in business and in the public sectors, it is clear that CI servo mechanisms are here to stay.

The heart of CI is that organizations must constantly measure the effectiveness of their processes and strive to satisfy all aims, but perhaps most importantly, assess those objectives most central to the organizations' mission including difficult-to-measure aims (Quality Training, 2001). In supporting program improvement, data dissemination must allow for consideration of the following elements:

- Assessment must reflect the unit's learning goals.
- The system must provide students feedback about the knowledge, skills, and dispositions candidates can expect to possess after completing coursework and academic programs.
- The total assessment system should provide a means for units to understand the dimensions of student learning when seeking to improve student achievement and the educational process (Minnesota Association of Colleges for Teacher Education [MACTE], 2009).

Assessment is an ongoing process requiring continuous reevaluation as to whether teaching and learning processes have achieved preestablished goals and outcomes. Changes are made following reevaluation. Assessment should be organized around a CI cycle. That is, the process must be cyclical and self-improving. (The iterative nature of CI is illustrated through St. Cloud State University's (SCSU) data-use system depicted in Fig. 1.) Pomerantz (2003) suggested that educators may have focused excessively on accountability at the expense of program improvement, an assessment element identified as its primary purpose (Fullan, 1999).

In comments that might explain why Elliot (2003) found little evidence of efforts to close the loop in teacher preparation programs, Soundarajan (2004) identified two key explanations of why leaders often fail to employ assessment results in program improvement. First, improvements in courses or groups of courses are often the result of variables such as changes in the field and [presumably informal] feedback from students (elements not always identified through typical data collection systems). Second, documenting improvements and especially tracking gains to data obtained during assessment activities remains challenging. As discussed below, our experiences with closing the loop matched Soundarajan's observations and produced one other noteworthy challenge: We found that the important task of tracking data use in CI produced a challenging new level of need for data collection, storage, analysis, and reporting with attendant management and workload issues.

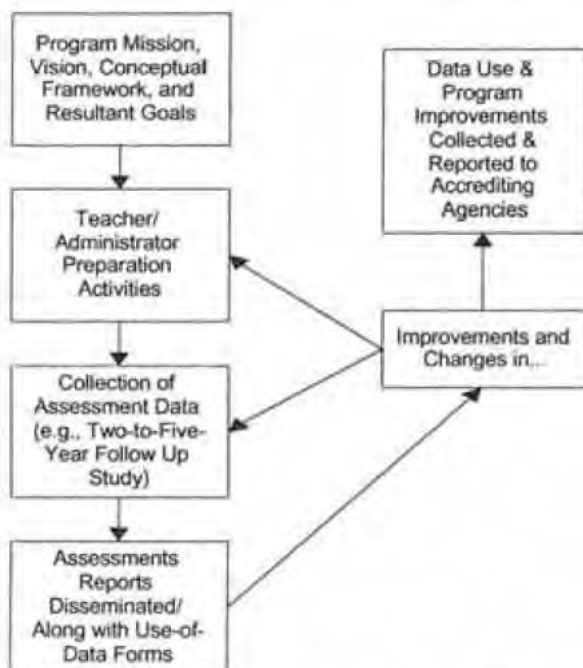


Fig. 1. Closing the Loop: Continuous Improvement Illustrated through the St. Cloud State Use-of-Data System.

In the following sections, we describe SCSU, the education unit, and end with a specific discussion of the system that we developed for tracking data use. The section dealing with our efforts to close the assessment loop features a discussion of both development of the system and its first round of results. We end with a summary of our findings and experiences.

Research Base

On paper, the effectiveness of data-based CI is hard to challenge; as we noted above, we find the idea so persuasive that we did not want to debate its use in this article. However, for the sake of fairness, it must be noted that evaluation of CI appears to be a weakness in the literature with few studies that compare, for example, the performance of institutions that close the loop with those that do not in terms of dependent variables of interest to

educators (candidate learning, student learning, cost-effectiveness, etc.). This effort, ripe for more and better attention from researchers, would prove a profitable topic for higher education and educational leadership researchers.

Despite the relative lack of what some may call “hard” data, case studies are available supporting the notion that programs can be improved through the employment of data in a servo loop. Bernhardt (2004) describes how middle school educators examined low test scores to settle on a CI strategy. In reviewing data, staff members shared ideas regarding what they needed to do to obtain different results. Once they had presented the data with a solid proposal, the district funded an outside facilitator to establish a structure for effective practice. “The structure included time to analyze their data and student work, and to develop strategies for improvement using the result of their analyses. Students’ test scores in the following year were greatly improved” (2004, p. 5).

Chenowith (2007) documented the importance of closing the data loop as applied to pre-K-12 education in her examination of schools in poor neighborhoods that succeed despite the odds against them. In summarizing the performance of institutions where the achievement gap had been closed, she noted that across programs, educators “embrace and use all the data that they can get their hands on” (p. 217). On the basis of these data, school officials constantly reexamine and adjust practices, certainly an example of closing the loop. Students at Philadelphia’s M. Hall Stanton Elementary surpassed state averages during the 2004–2005 academic year (the institution showed an increase of students passing state examinations in one academic year from about 15% to over 60%). Chenowith attributed this growth in great part to adjustments based on data interpretation. Stanton’s growth was not a fluke, but rather “a reflection of new practices ... a careful reorganization of instruction, comprehensive professional development of teachers, close examination of student data ...” (p. 128). It remains important for teacher preparation programs to demonstrate such gains based on the performance of their candidates.

THE INSTITUTION AND THE UNIT

The Institution

SCSU serves nearly 17,000 students in 205 academic degree programs, 139 undergraduate level, and 66 at the post-baccalaureate level. The institution is classified as Master’s College and University (larger programs) under the

Carnegie classification system (Reaching Higher: HLC Accreditation at SCSU, 2007). Other aspects of the Carnegie designation are listed below (Reaching Higher: HLC Accreditation at SCSU, 2007, p. 11):

- Undergraduate instructional program: Balanced arts and sciences/professions, some graduate coexistence;
- Graduate instructional program: Post-baccalaureate comprehensive;
- Enrollment profile: Very high undergraduate;
- Undergraduate profile: Full-time, four-year, selective, higher transfer-in; and
- Size and setting: Large four-year, primarily nonresidential

The university is organized into five colleges, one of which houses the teacher education unit (the College of Education). The institution is governed through the board of the Minnesota State Colleges and Universities (MnSCU), a body that oversees all Minnesota public Institute of Higher Education outside of the University of Minnesota and its affiliates. St. Cloud State is accredited by the Higher Learning Commission (HLC) and belongs to in the North Central Association.

SCSU possesses several characteristics that could be portrayed as distinctive. First, its technology resources, including instructional infrastructure, are on the high end for what used to be called Carnegie II intuitions. St. Cloud State was declared one of the "most wired" schools within its classification (Reaching Higher: HLC Accreditation at SCSU, 2007). Another distinctive feature of SCSU is its number of accreditations, with most eligible programs having earned such recognition. Finally, the Minnesota legislature approved applied doctorates in MnSCU institutions in 2005. St. Cloud State currently has two approved applied doctorates, both affiliated with the College of Education, although jointly administered with the School of Graduate Studies through a Doctoral Center (Educational Administration and Leadership/Higher Education Administration).

Through MnSCU administration, SCSU recognizes nine bargaining units, the most significant (for this discussion) being the Inter-Faculty Organization (IFO), representing teaching staff. The tradition at SCSU is for the IFO to be considered a strong advocate for faculty self-governance, obviously a factor to be reckoned with planning for accreditation and assessment. Strong faculty self-governance affects CI in many ways, but primarily through the faculty prerogative for curriculum oversight. As a result, several issues regularly appear as foci in deliberations. For example, faculty members carefully scrutinized measurement targets because many see such appraisal as lending itself to de facto curricular construction.

Of course, an extension of this notion is that assessment instruments deserve close study as their phrasing potentially affects program and even course content (rather than the other way around). In December of 2007, for example, a faculty member, noting that two items related to student teaching policies had been added to a survey instrument, indicated that "The nature of items and the targets we set, the way we measure them, impacts curriculum and how it is offered." Another argued during an assessment team meeting that certain survey items reflected, "Curricular concerns that are mostly a factor left to faculty governance." The weight of opinion on the Assessment Committee, however, was that feedback from students, cooperating teachers, and the administrators employing our graduates would help faculty members exercise reasonable judgment in curriculum oversight.

The *requirement* that data are to be employed in program change could also be portrayed as impinging upon faculty rights. Although we worried about the issue during planning stages, faculty members rarely voiced this latter sentiment.

As will be developed below, these legitimate faculty concerns can only be addressed through an iterative, transparent, and bottom-up process. From our experience and observations at nonunion academies, we conclude that these virtues remain essential to *all* institutions in the cause of ownership: participation of the faculty association in essence formalized the process of attaining transparency and democratic input.

Partly as a function of the most recent HLC accreditation visit during the fall of 2007 and the years leading up to it, St. Cloud State faculty members and administrators refined their existing university assessment program. An assessment director receives release time and is advised by representatives of the faculty. Each year, faculty members at the levels of both programs and departments develop student learning outcomes and report progress on these outcomes for the most recently completed academic year.

The Unit

The teacher education unit is administered in the College of Education; however, members of the Teacher Education Council (TEC) of the extended education faculty represent all but one SCSU college. For example, content area representatives of the Social Studies Education program are housed in the College of Social Sciences, and Communication Arts and Literature faculty reside primarily in the College of Fine Arts and Humanities. Science

and mathematics education students matriculate in the College of Science and Engineering.

The fact that scholars with interests in particular academic domains and whose history features secondary teaching in disciplinary areas (mathematics, the sciences, communication arts, and literature) reside both in the college of education and in SCSU's other academic units produces both challenges and opportunities for assessment. For example, while it is important for the sake of vertical curricular issues that elementary mathematics faculty members (housed in the College of Education (COE)) communicate regularly with secondary mathematics faculty (housed in the College of Science and Engineering), administrative boundaries must be broken if this is to occur. This challenge is balanced by the fact that if through grant writing and mechanisms such as the TEC, teacher education also tends to bring professors together across colleges. This integration was codified in 2004 when the COE and the College of Science and Engineering formalized their teacher education partnership through application for membership in the National Network for Educational Renewal, since lapsed (National Network for Educational Renewal [NNER], 2009).

Along with the TEC, the standing Assessment Committee provides an advise-and-consent function for the Dean and for the college's Assessment Director. All unit policy decisions are ultimately heard in a Dean's Advisory Council made up of chairs and directors.

The COE has seven departments all of which are involved in teacher education either through housing programs or through provision of support courses. Along with the departments, the College of Education currently houses three support units: the office of Clinical Experiences (student teaching and field placements in educator preparation programs), Office of Cultural Diversity, and Special Projects and Applied Research (dealing with external partnerships and encouragement of scholarship).

Two factors are illustrated in Tables 1 and 2. First, SCSU is a sizable teacher preparation institution, probably ranking in the bottom half of the top 20 nationally, although this clearly varies by year. Second, we experience difficulties recruiting candidates into mathematics, science, technology, as well as in world languages, a problem not unusual nationally (e.g., Carroll & Fulton, 2004). Finally, SCSU struggles with the recruitment of students of color into teacher education and support programs. The student body at St. Cloud state, by our last reckoning, was about 7% students of color, the figure is slightly lower in the teacher education unit. However, both the university and the unit are at least as diverse as the five counties surrounding the institution. Finally, our male to female ratio may be an issue in that

Table 1. Gender by Race Estimates for the Teacher Education Unit at St. Cloud State, Summer 2008 to Spring 2009^a (Completer Estimates).

Racial/International Category	Male		Female		Total	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
International students	1	1.1	0	0.0	1	0.2
African American/Black	2	2.3	4	1.2	6	1.4
American Indian/Alaska Native	0	0.0	3	0.9	3	0.7
Asian or Pacific Islander	1	1.1	5	1.5	6	1.4
Hispanic/Latino/a	2	2.3	1	0.3	3	0.7
White/ non-Latino/a	74	84.1	313	94.8	387	92.6
Race/ethnicity unknown	8	9.1	4	1.2	12	2.9
Column totals	88	100.0	330	100.0	418	100.0

^aThe term estimate is employed because these are the most current figures for reporting purposes and the study is still in progress. These figures include all undergraduate and post-baccalaureate candidates.

some concern has recently been expressed about the need for teachers as role models for boys, particularly boys of color (c.f., Noguera, 2003).

THE SCSU CONCEPTUAL FRAMEWORK

The notion of a conceptual framework (CF), as promulgated by American Association of Colleges for Teacher Education (AACTE)/NCATE, is intimately tied to data use in the CI cycle (see Dottin, 2001, for an excellent explication of this argument). Essentially, a CF consists of a concise statement of the philosophies and resultant processes that guide delivery of the education preparation sequence. The CF supports CI primarily in its role of focusing the aims of the education unit around a sense of purpose: "the relationship between the conceptual framework (unit purpose) and continuous improvement is 'the ability to simultaneously express and extend what you value. The genesis of change arises from this dynamic tension'" (Dottin, 2001, p. 32, citing Fullan, 1993, p. 15). Dottin concluded his thought with the sensible argument that "Continuous performance improvement is therefore facilitated by the conceptual framework as the aim of the unit is facilitated by a process of continuous improvement that moves from a *conceptual big picture* to parts and then back to the whole to the use of results to effect change" (p. 32, emphasis added).

Table 2. Completers by Program, 2005–2006 to 2007–2008, St. Cloud State University.

Program/Program Category	2006–2007	2007–2008	2008–2009
Secondary/ K-12 programs			
Communication Arts & Literature	10	21	16
Music Instrumental & Classroom K-12	6	1	5
Visual Arts K-12	15	9	13
World languages: French	1	0	1
World languages: German	0	2	0
World languages: Spanish	3	4	2
English as a second language K-12	10	5	2
Mathematics 5-12	5	5	2
Science: Chemistry 9,012 & 5-8	1	0	3
Science: Earth and space Science 9-12 & 5-8	2	2	2
Science: Life Science 9-12 & 5-8	8	6	4
Science: Physics 9-12 & 5-8	0	0	0
Technology education 5-12	14	1	6
Social studies 5-12	28	26	24
Library media specialist K-12	2	2	6
Physical education teaching K-12	19	25	19
Special education (all areas graduate + undergraduate)	77	74	70
Elementary (K-8)	113	151	114
Early childhood education (birth to Grade 3)	45	32	36
Total completers, 2005–2008	359	367	325

Notes: The data in this table are completers as we reported them for the state Title II report. Note that final figures for the 2008–2009 year were not complete as of this writing. Initial licenses only. If additional licenses are included, the total for 2008–2009 becomes 416, 76 of which represent additional special education licenses, all at the graduate level.

In looking at the CF, Educator as Transformative Professional (ETP, 2008, Fig. 2), one can see that a compromise was effected between the specificity sought by accrediting bodies and the need to accommodate the broad range of philosophical values in the unit, from what could be seen as postmodern in many departments to a direct instruction orientation in one subdivision, not altogether an unusual state of affairs in teacher preparation. In the end, faculty members agreed on a model primarily informed by constructivism (Bruner, 1996) centered on social change. While ETP can be legitimately criticized for its complexity, it effectively communicates the unit's firm commitment to social change. The SCSU unit would be a poor fit for potential faculty members or candidates who see education through the lens of essentialism, for example. Such communication of purpose is a

The Educator as Transformative Professional



Fig. 2. A Graphic Organizer for the St. Cloud State University Conceptual Framework.

putative virtue of CFs generally. Highlights of the *Teacher as Transformative Professional CF* (Fig. 2) are explicated below. In online documents (Conceptual Framework, 2008), the philosophical underpinnings are laid out:

We embrace the notion of social constructivism but only in the sense that we believe that knowledge (about teaching and learning) must be reworked and transformed (made personal) by candidates as they acquire it. We believe that an excellent education program transforms individual learners. Candidates are transformed via acquiring the knowledge, skills, and dispositions of professional educators. Students in the schools are changed to become more sophisticated learners from their interactions with candidates. Professors and instructors rethink modes of instruction and even their belief systems as they interact professionally with candidates. Parents of public school students and school administrators are changed constantly by new information emanating from the unit.

As can be seen in Fig. 2, we organized the model around the progression of experiences arranged for candidates (termed, “process and knowledge arenas, dimensions of learning, integration of multiple perspectives, and interdisciplinary collaborations”), culminating in seven role performance expectations. Notice the avoidance of terms such as “outcomes,” “objectives,” or even “aims”; such nomenclature would have been greeted unfavorably in the unit as excessively deterministic. Assessment Committee members crosswalked the role performances with *New Teacher Consortium* principles, to develop items for assessment instruments (Interstate New Teachers Consortium [INTASC], n.d.). A brief description of each of seven role performances is provided below (Conceptual Framework, 2008):

- *Content transformer (A-1)*. Candidates continuously evaluate and modify pedagogy and instruction in light of their lived experiences, technology, and newly acquired information.
- The *Inclusive Educator (A-2)* effectively considers diversity in the design, delivery, and development of learning.
- *Humanistic educator (A-3)*. Candidates display the disposition to deeply value all persons, thus treating them equitably—evidencing a regard and appreciation for the worth and dignity of individual human beings.
- The primary transformation implied in the role of *Culture Transformer (A-4)* is that candidates develop dispositions and a knowledge base allowing them to embrace many cultures and subcultures and that they prove able to transform appropriate aspects of their classroom and school culture(s).
- *Researcher (A-5)*. We expect that candidates will adopt the stance of a systematic enquirer as part of their professional identity.

- *Problem solver/Decision maker (A-6)*. The transformative professional must effectively employ formal and informal data (quantitative and qualitative) in making decisions about curriculum, learning and behavioral outcomes, and planning methods to be employed with the individuals that he or she serves.
- *Reflective practitioner (A-7)*. Personal transformation requires deep and continual reflection. The candidate continually participates in healthy self-criticism regarding teaching and learning; in addition, the individual continuously and rigorously re-examines personally held and professionally accepted field-based assumptions.

Preparation for the 2008 Accreditation Visit. SCSU's accreditation and state licensing (concurrent) visit was conducted in April of 2008, with final approval granted on October 31 of the same year. As NCATE requires two annual cycles of academic performance data, faculty members found 2006 and 2007 to be extremely busy years. Aside from regular meetings of an Assessment Committee and an NCATE Oversight Committee, many ad hoc meetings and activities were held as the self-study process under the leadership of our past two deans.

Leadership teams organized several college-wide meetings around the topic of diversity. The first of these stressed the importance of documenting diversity competencies in coursework, whereas a second retreat in December of 2007 dealt with self-study findings regarding the diversity of student teaching and field placements. Diversity data from follow-up and employer studies were shared and discussed at this meeting.

The CF was revisited through two efforts. First, faculty members looked at a redesign effort in late 2005 and early 2006; second, the dean, in consultation with advisors, organized efforts to redesign explanatory materials and to integrate the CF with more current educational research (it will be recalled that the model first appeared in 2000).

As Minnesota officials combine state licensure and accreditation visits, program evaluation materials for the Minnesota Board of Teaching review were under revision at the same time that summary data were being organized for the NCATE appointment. We viewed the combined visits as decreasing rather than increasing the long-term workload, while simultaneously intensifying short-term preparation efforts.

During the two-year period leading up to state and NCATE visits, the dean led the charge to revisit both the content of our approach to dispositions and the organizational design of these competencies. The end result was that language was modified from the INTASC dispositional

standards; the in-house standards refer to educators as opposed to teachers, language considered more inclusive and a better fit with the unit's mission.

Members of the Assessment Committee established and then implemented a system for documenting the dissemination of data and to record its use in CI. This aspect of our work is laid out in more detail below.

THE SCSU DATA-USE SYSTEM

System Development

The system that evolved for reporting on data use in the unit was the work of many hands, mostly faculty – members of the Assessment Committee. However, the final product included emendations proposed by many sources as it cycled between the Assessment Committee, the dean's advisory panel, the TEC, programs, and departments.

Representatives first reached agreement on a schedule for dissemination of assessment studies (Assessment Matrix, 2008). We agreed that each time a report was disseminated, a format for responding to the instrument would be distributed in paper and electronic versions. Also, the graduate students working on the assessment team would remind chairs and program coordinators periodically to return the data-use form (appendix). A depiction of the process we envisioned is shown in Fig. 1 (note that this is our interpretation, not an institutional figure).

Initial Findings

Working through a mandated IFO committee, we developed a pilot system, including a set of expectations and a format for “reporting back” on unit-wide and program data use (Ackerman & Hoover, 2007, *Data Use Process*). Despite the very real problems discussed in the next section, 14 program representatives responded to the pilot project (Ackerman & Hoover, 2008). For the purpose of this discussion, we have also examined the approximately 25 additional responses that have been collected since that time. Initially, we received 14 responses to six disseminated reports – out of a potential response rate of approximately 60, just under a quarter of those possible. These figures have climbed since that time, but not to desired levels.

Assessment Committee members intend to reexamine the system to determine how it (see appendix) can be revised and simplified. Despite the

relatively low response rate on the pilot application of the data-use system, we learned important lessons about our programs and, most specifically, our data management system; the language of these conclusions is adapted from the pilot study report referenced above and from data collected since the 2007–2008 academic year. Several of the conclusions are drawn from findings since that time.

Representing both practical and philosophical needs, program-level respondents formally requested that more qualitative, “contextualized” data be collected, in some cases to replace questionnaires, in others to supplement and lend context to data collected through surveys.

Some difficulty was encountered by report readers in translating unit-wide data to the program perspective – especially in translating needs to the “local” level. This complaint was true even when qualitative, narrative data were disseminated. The “program-level vs. unit wide” issue was, however, not insurmountable. While respondents requested disaggregated data (subsequently supplied based on these requests), several demonstrated the ability to integrate data from the unit-wide report with information that they had collected on program candidates.

Respondents consistently identified unit and program strengths and perceived areas for improvement. Respondents consistently (although not unanimously) endorsed the following strengths, suggesting that they represent valid themes for future unit-wide growth: (a) diversity preparation, (b) respect for all students, (c) high expectations for all, (d) candidate ability to affect student learning, and (e) dispositions related to the field. Chairs and program coordinators identified consistent areas for growth in the unit, although they occasionally questioned the applicability of these elements to programs: (a) assessment practices, (b) curriculum development, and (c) advisement.

Programmatic and Assessment Changes

Several changes resulted from feedback to reports disseminated each year and to data collected from more informal sources. These are highlighted below.

In line with feedback from chairs and program coordinators, we increased the number of program-level reports, completing a process that we had initiated earlier. Data reports were disseminated for every program with more than 20 respondents, even if data needed to be cumulated over a longer period to produce target numbers.

Due to low response rates, methods for collecting the self-report instrument were altered in 2008, increasing the response rate from about 30% to about 85%. Although this information did not emanate from the use-of-data forms, it represented a similar orientation toward CI.

Several specific changes to test instruments accrued from the feedback process. On the basis of a problem (ceiling effect) with data generated through a "performance-based" instrument (collected during student teaching), members of an ad hoc committee revised the tool. The end result of this was that the reliability metrics improved as the instrument yielded a more defensible range of scores. Members of one department critiqued the self-report and cooperating teacher questionnaires because they could not disaggregate between their birth-to-age-four and K-grade-3 cohorts. Accordingly, the recommended adjustments were made in the fall of 2009.

Members of the Assessment Committee expressed concern about the lack of response to state-wide testing reports. As a result, this year, members of the unit produced a summary report based on the Praxis series that summarized pass rates and provided several programs with specific data regarding domain performance. Because of relatively low pass rates in selected programs highlighted in Praxis returns, both the PPST and the Praxis II series, we organized a Praxis Center (2006) designed to support candidates' content knowledge and test-taking strategies.

The first few iterations of a unit operations study revealed that, while relationships between students, faculty, and staff remained strong, candidates desired better and more accurate advising. Several actions have been taken directly based on this feedback. First, the unit representatives have begun working more closely with the advising center to improve services to candidates. Second, strong faculty advisors in some programs were assigned to more direct contact hours with candidates and to educate newer faculty members in the art and science of advising. Third, we generated plans to address advising during student focus panels (planned for 2010 and 2011).

On the basis of the desire for more qualitative information, plans were made and carried out in three initiatives. First, members of the Assessment Committee revised the dissemination schedule. Even though questionnaire-based data would be collected each year, they would be disseminated every other year (covering three-year periods). This would allow members of the assessment team to design and implement more qualitative studies and to respond to ad hoc requests from departments and programs. Second, the decision was taken to periodically analyze and disseminate reports based on the written (e.g., qualitative) comments returned on questionnaires and

to provide these comments in raw form as appendices to quantitative reports. Finally, we designed focus panel studies to be carried out in 2010 to supplement self-report and cooperating teacher studies.

Feedback from student advisory panels yielded several alterations in unit operations. First, Space and Technology Committee members oversaw improvements in pedagogical spaces, including redesigned classrooms and installation of instructional technology enhancements in the form of audio-visual equipment. Second, interactive boards were added to many unit spaces. Third, we added cafeteria facilities in the education building.

SCSU participates in the National Assessment of Student Engagement (National Survey of Student Engagement [NSSE], n.d.). Although we found these data quite useful, once results were disaggregated, numbers were too small for reasonable interpretation – even at the unit level. Because of this, we added a unit operations survey to our arsenal of assessments. As mentioned above, this change produced some small criticisms of advisement in the unit that have subsequently been addressed.

As of the fall of 2009, members of the Assessment Committee considered problems generated by competing reporting requirements. A plan is underway to integrate requirements for university and accreditation accountability systems.

SUMMARY OF EXPERIENCES/LESSONS LEARNED REGARDING DEVELOPMENT OF A CONTINUOUS IMPROVEMENT SYSTEM

We found that external and internal pressure to document data use as a central feature of program improvement produced meaningful and positive additions to our practice, despite a host of both predictable and unexpected complexities. Several specific aspects of this generalization deserve particular mention in light of this volume's guiding theme.

The data-use process obviated the problem frequently voiced by assessors that their products disappear into the ether. As assessment veterans, we have often lamented what practitioners' voice, in their more cynical moments, is the "file 13 dilemma." Reports, often the culmination of considerable thought and effort, end up in the waste can. More than a waste of financial resources, such practices produce human cost in lost productivity traceable to declining motivation and increasing cynicism about assessment and its functions. We would prefer to hear from faculty members that a given

report lacked utility (and we *did* hear this) than never to know whether consumers considered or even read it.

Assessment procedures are likely to be strengthened if a system exists to garner feedback on the process and its resulting products. We found that this generalization accounted for our experience in several ways. First, once it became clear that program representatives were attending to data, members of the assessment team found new reasons to produce their best work. Second, negative statements about assessment reports and dissemination practices helped assessors refine their efforts. In short, it is likely that CI processes render the entire system more useful and ultimately more user-friendly (Banta & Palomba, 1999).

Difficulties

At first glance, the process of tracking data use looks straightforward, but we can explain some of the pressures and pitfalls of developing and implementing such a system. We discuss a cross-section of emergent complications below.

One source of resistance to developing and implementing the system was termed by one departmental wit as "systems collision," wherein competing demands for data and data-based reports and responses produced confusion and, not to put too fine a point on it, hard feelings. Our data-use system, especially the pressure to produce departmental and program reporting requirements come on top of competing program and departmental, and, most significantly, university demands for reports, much of them "looking like" the assessment information requested in a data feedback loop; this produces, as might be expected, workload issues.

Faculty members' workload concerns struck us as perfectly legitimate. After all, unit efforts alone produce 15 studies per year, nine of them disseminated. Once the continuing improvement system was instantiated, faculty members were required to read, consider, and respond in writing to this new document. This work tended to devolve on chairs and coordinators; unfortunately, these increasing demands coincided with reductions in release time resulting from the recent economic downturn.

The resistance factors discussed seemed to result in tactics such as nit-picking documents during their production and during the approval process, perhaps subconsciously for the sake of "putting off" the initiation of requirement to schedule meetings, discuss reports, and send documents forward. It is difficult to determine whether this resistance is conscious or

unconscious – the only certainty is that it remains both comprehensible and ubiquitous. Occasionally, faculty members would express a great deal of worry. We recall one chair lamenting that, “No matter what we decide here, people are not going to do this” [extra work].

We found it difficult to balance movement toward an institutional goal with the necessary patience required to produce faculty ownership. Depending on how one achieves this tipping point, leaders will either meet excessive resistance simply because they are seen as officious or will oversee many late nights’ work as deadlines loom. Perhaps, the most important lesson that we learned was that leadership involves a tolerance for the natural ambiguities that accrue to systems change. Working in a complex institution with many leaders, players, and constituents renders transformations difficult; perfectionists need not apply.

A particular pressure devolved on committee members. Because individuals on the Assessment Committee kept themselves informed about accreditation issues, they understood the need for data reporting in the context of CI. This knowledge did not reduce the potential for unpleasantness when representatives took products and processes back to departments and programs for discussion. One outcome of this was that strategies for reporting new assessment requirements and approaches to communicating about them often dominated committee discussions, not an unreasonable outcome. Heuwinkel and Hagerty (1998) offered a salient observation on the topic by distinguishing between ownership and commitment. With bottom-up processing, we found that committee members started to identify with evolving systems precisely because they helped develop them (a good thing), but that putting one’s self on the line for commitment to systems change, and the required effort, is entirely another matter. Simply put, procuring buy-in or commitment to the process is essential if accreditation and the self-study associated with it are to lend themselves to CI as opposed to merely going through the motions.

The process must be bottom-up in the sense that process and product are designed by faculty members and other groups that will employ the data. The assessment director must stand back and attain a balance between pushing for completion and eliciting bottom-up feedback to produce commitment; we found persistence versus patience a difficult balancing act. In a related note, it is probably wise to alert faculty members working on systems change that they will likely encounter push-back when they bring ideas to department and program meetings for approval. In other words, change agents must come prepared to encounter resistance to change, some more informal than formal (e.g., missing or forgetting meetings). It is the

responsibility of faculty leaders and administrators to create environments where resistance occurs as infrequently as possible. We suspect that the factors (democratic processes, transparency, constituent participation, direction, and patience) shown as effective in systems change achieve their efficacy, in part, through reducing resistance.

We found it useful, even after all parties had agreed to an assessment practice, to carefully plan the rollout and beta testing of a new system. If our experience is predictive for others, assessors should be prepared for a situation where the first round of feedback from a data-use tracking system reflects primarily on their own work. Once we got over the shock (and wiped away the tears), we found this feedback extremely valuable.

Transparency is paramount in producing significant changes to the unit's way of doing business and procuring commitment to these alterations. This aspect of change is enhanced not damaged by a strong union environment, where democratic processes for change tend to be institutionalized.

In systems change, no substitute exists for what a colleague calls "front-end loading" in the planning process. We mean by this doing the admittedly difficult work of team and consensus building at the processes launch. Related to planning, we learned that change is and always will be iterative. We must constantly revisit team building (for obvious reasons), consensus seeking, and the planning work itself. CI is predicated, after all, on the notion that the process itself will highlight the need for redesign.

The new layer of assessment data, the data-use forms, requires inordinate attention to detail. While clerical staffers were accustomed to sending out reports, they had to be reminded frequently at first that data-use forms needed to be disseminated with assessment reports. Ways had to be found to store the forms, analyze information, and disseminate [new] information. A bit of humor comes in here because the use-of-data step potentially produces an infinite regression: Disseminated reports require response; the response is used to develop a new report; the resulting report is disseminated; thus requiring a response; the responses are analyzed... As can be seen in Fig. 1, we elected not to formally disseminate the reports based on the use-of-data forms, except as part of the accreditation visit.

Careful accounting needs to be made of all gatherings of important constituencies of the unit and programs. Special attention should be paid, not just to careful note taking, but to archiving these qualitative data and finding creative ways to disseminate the information (and to determine

whether these data are employed in decision-making – closing the feedback loop). A few examples can be cited from our experiences:

- Undergraduate and graduate student advisory committees operate much like focus panels and, because members tend to be selected because they demonstrate leadership, we have found their feedback to be particularly useful (thus written summaries are presented to the Dean's Advisory Council and archived for future consideration).
- Departmental feedback to NCATE and Assessment Advisory Committees should be regularly recorded and archived; as was true of student advisory panels, these gatherings often serve as de facto focus panels.
- Focus panels, interviews, and data collection from grant activities related to the unit's mission can serve as data sources for accreditation visits.

The notion of data-driven decision-making toward CI is a tenuous one at best, especially when void of evidence to support that substantive changes have been made. To enable a comprehensive data-driven assessment plan, it takes strong leadership to ensure its implementation (Bernhardt, 2004). However, data-driven decision-making potentially provides schools, colleges, and universities valuable information about their current situation and guides them as to how to use data to create substantive change.

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APPENDIX. ASSESSMENT DATA FEEDBACK FORMAT

Department, Program, or Unit _____ Date of Meeting _____
 Person Completing Form _____
 Name of Report(s)/ Information Considered: _____

Instructions: Please fill out this form after any meeting where information and/or data related to unit, program, and/or candidate performance has been considered. It is expected either that departmental chairs or the Assessment Committee representative will fill out and return this document. At least one form is required after each set of unit- or program-level data is disseminated. Please fill out form electronically and take as many pages as you need. Members of the Assessment Committee ask that you fill out this form after any significant program change is undertaken (new course, change in course, change in program) in order to track the ways that data are employed for program changes. Please direct either a hard copy or an electronic copy to the Assessment Director.

1. Based upon the above report(s) evidence for particular programmatic *strengths* (if appropriate, cite other data/information sources that confirm or question program strengths):
2. Based upon the above reports, evidence for consideration of programmatic areas *that show need for improvement*, if any (if appropriate, cite other data/information sources that confirm or disconfirm program area "need for improvement").
3. *Proposed or considered curricular, policy, or procedural changes.* Please list programmatic changes that have been considered since the last report and the information upon which proposed change(s) was/were based. This information is particularly relevant given information contained in the report accompanying this form
4. Describe a prospective process for change, including timelines (if appropriate), and progress indicators.
5. *Need for more information.* Please enter requests for data, information, or reanalysis that are suggested by the information included in the report(s) listed above.
6. Other comments: