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Department Level Assessment: Promoting Continuous Improvement

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The purpose of this paper is to apply the quality concept of continuous improvement to academic departments. Most academic departments engage in periodic self-reviews as part of their university's three or five year program review process or in anticipation of an impending accreditation visit. These reviews generally provide a snapshot of the department's functioning at a particular point in time. Very few academic departments (except perhaps those with professional programs) engage in anything which could remotely be called a Continuous Improvement (CI) initiative.

There are a number of reasons why CI is not part of most departments' culture. Among these is the fact that CI is usually an "add on" to a department and department chair's responsibilities, and not compensated in terms of release time or additional resources. Those chairs that have recognized the value of a departmental assessment plan often wind up writing it themselves, and as a result the plan has limited buy-in from departmental members whose support is needed for implementation. Inherent in the CI process is the fear of learning about oneself. Learning that "business as usual" is not as effective as had always been assumed can have political implications in terms of staffing and budgets.

Still, becoming self-regarding by engaging in and being able to document continuous improvement on the department level is something accreditation agencies expect, legislatures demand, and the public applauds. Therefore, it is likely that CI will become part of an increasing number of departments' cultures.

The goal of a continuous improvement initiative is for a department to become self-regarding, self-monitoring and self correcting. The result is that the department is confident of the quality of their graduates' knowledge and skills before the students enter the work force. Finding out how students have fared years after graduation isn't good enough. Continuous improvement means that the "correction cycle" is shorter because progress is constantly being monitored. Deficiencies are identified and are corrected while the student is still on-site, and corrections are made to department level processes to keep similar deficiencies from occurring.

Department Level Assessment

A department's continuous improvement efforts begin with the development of a department level assessment plan. There are a number of characteristics of good departmental level assessment plans. Specifically, a plan should be:

- Principled. A good departmental assessment plan should be based on principles that are (ideally) defined at the university level.
- Integrated. Department level assessment plans should be departmentally driven, but also tied to the university assessment initiatives and program review, carrying through themes related to outcomes in the major and general education.
- Ongoing. Department level assessment should be part of the ongoing "business" of the department, not only a priority during program review cycles or prior to accreditation visits.
- Comprehensive. Assessment activities should encompass students, faculty, and resources; inputs, process, and results.
- Acculturated. Department level assessment can stand on its own, but to be optimally effective department level efforts need to be a valued and supported part of the university's culture.
- Implemented gradually. Assessment needs to become part of the culture slowly, implemented in carefully orchestrated steps over time.
- Practical. To be truly useful, department level assessment must stay on a practical level with obvious implications to faculty and students.
- Self-Renewing. Assessment data and information must feed back into the system, both on the university level and departmental level.

A department level assessment plan should identify the mission of the department, goals related to that mission, activities or processes supporting the achievement of the goal, and a number of measures which, when taken together, provide an indication of the degree to which the goal is being achieved. Implementing the plan requires the collecting, analyzing and benchmarking of data, revision of processes, and communication of results.

Steps to Developing and Implementing Department Level Assessment Plans

Before a department can develop an assessment plan, it is helpful to understand what a department level assessment plan looks like. Essentially, a good departmental assessment plan is one that is workable and one that will yield information that will help a department learn about and improve itself. Having an elaborate plan that is paralyzing in its complexity will almost assure that the assessment plan will never be implemented.

A good department level assessment plan is one that identifies a limited number of goals to which the department members have agreed and that have the potential to make a difference in how the department functions.

Mission

Goal 1	Goal 2	Goal 3	Goal 4	Goal 5
Activity	Activity	Activity	Activity	Activity
Activity	Activity	Activity	Activity	Activity
Activity	Activity	Activity	Activity	Activity
Measure	Measure	Measure	Measure	Measure
Measure	Measure	Measure	Measure	Measure
Measure	Measure	Measure	Measure	Measure
Measure	Measure	Measure	Measure	Measure

Basically, the model plan has a limited number of goals, supported by a number of departmental activities or processes designed to support the achievement of the goal. Multiple measures taken together provide an indicator of the degree to which the goal is being achieved.

Steps to Developing a Departmental Assessment Plan

There are twelve steps to the development and implementation of a department level assessment plan.

1. Agree on the mission
2. Identify the scope of the plan
3. Create goals
4. Identify related processes and activities for each goal
5. Brainstorm appropriate measures
6. Evaluate and select measures
7. Identify appropriate assessment methods
8. Develop a plan for collecting data
9. Prioritize goals, set timelines, identify milestones
10. Implement assessment plan
11. Use data to improve processes
12. Communicate results

1. Agree on the mission

This first step is much easier said than accomplished. The problem is that everyone has their own idea of the characteristics of a mission statement. For some people, a mission is essentially a slogan. For others, it is a statement of core values. Some argue that it should be a long statement, others argue that it should be no longer than a sentence or two. Still others insist on bullets.

It is possible for departments to spend a number of months on this step, and then never go any further because they are so tired of the process. Time will be better spent talking about what it is that the department really wants to accomplish and making sure that this is tied to the mission of the university. A minimum goal is for a "conceptual convergence"—agreement among department members as to (1) who it wants to serve, (2) in what ways, and (3) with what result. Agreeing on these three questions will provide a basis for continuing. If a formal statement can be crafted that everyone agrees upon, all the better. But a conceptual agreement is sufficient for proceeding to Step 2.

2. Identify the scope of the plan

One of the first tasks for a department, after determining the mission, is to determine the scope of the plan itself. What happens in a department can be understood by thinking of it as a system consisting of inputs (what goes into the department), processes (what happens while in the system), results (the outcomes), and feedback (how the results transform inputs and/or processes). A broad plan might consider goals in all of the categories: inputs; processes; results; and feedback for both students and faculty. A narrow plan might focus on limited elements (e. g., processes and results for either students or faculty).

The cycle of department level continuous improvement starts with a set of clear departmental goals that encompasses not only the expected results (e. g., student learning, student satisfaction, faculty research), but also the related inputs (e. g., equipment, facilities, personnel) and, most importantly, relevant processes (e. g., curriculum, instruction, advising).

INPUTS	PROCESSES	RESULTS	FEEDBACK
STUDENTS	CURRICULUM	STUDENT COGNITIVE LEARNING	ALUMNI
FACULTY/ STAFF	COURSES	PERSONAL GROWTH AND DEVELOPMENT	EMPLOYERS
FACILITIES & SPACE	INSTRUCTION	CAREER SUCCESS	PARENTS
EQUIPMENT	STUDENT DEVELOPMENT OPPORTUNITIES	EDUC. SATISFACTION	COMMUNITY
PHYSICAL RESOURCES	ADVISING	FACULTY SKILL IMPROVEMENT	DONATIONS
FINANCIAL RESOURCES	CO AND EXTRA CURRICULAR ACTIVITIES	PUBLICATIONS	LEGACY ENROLLMENT
	RESOURCE AND CURRICULUM DEVELOPMENT AND MANAGEMENT	SERVICE CONTRIB.	SERVICE TO DEPARTMENT/ UNIVERSITY
		DEPARTMENT/ UNIVERSITY REPUTATION	
		COMMUNITY RELATIONSHIPS/ IMPACT	

The goal of creating a departmental assessment plan is to facilitate continuous process level improvement. In order to do that, the plan needs to be workable. A limited number of meaningful goals will be more beneficial to a department than a complex plan that is gathering dust on an administrative shelf.

3. Create goals

Having identified the scope of the plan, the next step is to create goals within the scope of the plan. If the department has decided to focus on students' academic success, the goals would probably be related to academic processes which promote student learning (curriculum, teaching, advising), as well as goals which identify the intended result (knowledge and skills).

4. Identify related processes and activities for each goal

Each departmental goal should be supported by an identified list of processes and activities that support the achievement of the goal. Unless specific processes or activities that support the goal can be identified, it is unlikely that the goal will be achieved in any kind of systematic manner. In such a case, the department needs to design activities specifically to encourage the achievement of the goal.

5. Brainstorm appropriate measures

At this point the question becomes "How can a department know to what degree they are achieving the goal?" There are a number of ways to do this. Direct measures are those that come from student interviews or questionnaires, or from directly observing student behavior. Indirect measures come from artifacts or interpretation — where the subjects are not aware that they are being studied. The resulting data can be either qualitative or quantitative. Qualitative data tends to yield a rich data set, but can be hard to interpret. Quantitative data such as percentages and ratios allow for easier interpretation, but at the cost of neglecting some of the finer points of the data. A combination of both will be most helpful. Quantitative data will be easier to track longitudinally, while qualitative data will provide a context for interpreting the quantitative measures.

The idea is to brainstorm as many—and as creative—measures as possible.

6. Evaluate and select measures

Ideally, departments should select only a limited number of measures for each goal. There are a number of criteria which are useful in this process.

- Is the measure important as opposed to merely interesting? Most data are interesting, especially to assessment people. But not all of it is important. The trick is to determine what is the most credible, valid way to make inferences about the progress on this goal.
- Does the required information exist or will a new process be required to collect the data? A department has both limited time and resources. Best possible use of both need to be made. Selecting measures that will require the creation of elaborate data collection methods should be undertaken only after a serious consideration of costs and benefits. Perhaps the best place to start is with data that might already exist. The Institutional Research Office, the Registrar's Office, the Placement Office, and the Alumni Office might all have information useful to a department. Finding out what information these offices routinely collect and if data from a specific department or group of students can be pulled from their databases might save considerable effort.
- Is the measure easily understood? Does it have high "face validity"? Does it lend itself to unambiguous interpretation? Anyone who has collected data has been faced with the situation in which the data are uninterpretable. Think about whether or not alternative interpretations/explanations of the data are possible before selecting the measure.
- Are fluctuations in the measure a result primarily of the department's/unit's actions or are extraneous factors more influential? This is a simple one. If the department does not directly control the input or process responsible for the outcome, it should not be selected.
- Is it possible to measure the outcome in a way that preserves its integrity? Some outcomes might be very important, but credible measures are difficult to obtain. It is important to know why students leave a university, but student responses to queries about this are strongly influenced by social desirability pressures. For a lot of students, it is easier to shade the truth rather than admit that they are homesick, miss their girlfriend, or are flunking out.
- Does the measure change over time? Some measures are too stable over time to be sensitive to growth processes. Unfortunately, it is difficult to identify these measures until they have been collected for a couple of years.
- Does the measure signify achievement of a goal or merely the success of a related activity? This is a big issue. Remember, the idea is to measure the progress toward the goal. So if the goal is to increase multicultural sensitivity on campus, counting the number of students who attend a lyceum on the topic is more a measure of the success of the activity (and a specious one at that, since many students are bribed to attend campus events with extra credit), than of increased sensitivity on the campus.
- Will the measure provide information which can be used for improvement? For each measure, ask: "What can be learned from this?" and "How can this information be used to develop improvement strategies?" If the measure does not point to any possible process improvement, it may not make sense to collect it.

7. Identify appropriate assessment methods

Once the department has an idea of what their goals are and what constitutes success, the next step is to figure out how to assess the goals. There are a number of methods for both process and outcome assessment, including:

Locally prepared exams
National exams (licensure, graduate school, professional society, board exams, etc.)
Oral exams
Surveys (locally developed, nationally normed, students, alumni, employers)
Journals/application papers
Inventories
Database elements
Transcript analysis
Curriculum or Skills Mapping
Portfolios
Case studies and analyses
Benchmarking
Interviews (individual, focus groups)

Performance/Presentation (exhibitions, projects, research)
Capstone experience
Theses, Internships
Simulations & Role Play

Each of these methods has advantages and drawbacks in terms of implementation, expense, and analysis. In some cases, assessment can be embedded into a capstone experience such as an internship or senior thesis. Student portfolios might also offer opportunities for both process and outcome level assessment. It is desirable to design an assessment method that will provide measures of a number of different goals.

8. Develop a plan for collecting data

At this point the department has identified goals along with processes and activities, brainstormed measures for each goal, picked a small number of the best measures, and identified the best method to collect the information. Now it is time to figure out how the information is going to be obtained. There are several important considerations:

- Why is this important? This is one last chance to weed out any bad choices that have been made about measures.
- From whom can we get this information? Identify the population to be assessed. Think about the kind of information being sought and who would have that information. Remembering the bias in self report data, it is important to consider other assessment methods. It might be useful to consider "stealth assessment" — records that exist in places like the Registrar's Office or Financial Aid Office that might provide accurate information free from the drawbacks of self-reports.
- How can it be collected? Details are important. For instance, if surveys have been selected as a means of assessing student satisfaction, consideration needs to be given to how they will be administered—telephone, mail, WWW, e-mail, paper and pencil? The key is to balance costs and rewards such as response rates, credibility, and confidentiality.
- Can the data collection serve more than one purpose? If the department is interested in assessing both critical thinking and writing skills, it might be possible to design a writing exercise that requires the demonstration of both.
- When is the best time to collect the data? Timing is critical. Consider the rhythm of the academic year. Anyone who has distributed course evaluations during the final exam period has learned this fundamental lesson.
- How can the data be evaluated? Will the data have inherent meaning, or will the meaning come from triangulation with other data, benchmarks, or a baseline?
- How can the data be used? If it is not clear how the information will be useful, if it doesn't point to some process that can be improved, then it is not a good measure.
- How can the data be reported? Qualitative data is harder to collect, analyze, and report than quantitative data. On the other hand, qualitative data adds a powerful, often persuasive dimension to quantitative data.

9. Prioritize goals, set timelines, identify milestones

Ideally, a department should prioritize goals *after* having worked through the first eight steps with each of the goals that have been identified. Having done this, the department has a full understanding on what working on each goal entails and can make a responsible decision about which goals to work on first. The decision is based upon information as opposed to intuition.

But there's a balance that needs to be considered. If developing all of the department goals up to this point means that the department loses interest in assessment, then it makes sense to move ahead sooner. Getting started on something is better than being noble in principle but lost in detail.

It is recommended that a department should develop fully (Steps 1–8) four to six department goals, and select two or three to work on each year. Be realistic. Two or three goals will keep any department busy.

It is important to note that progress on specific goals will proceed at different rates. For instance, a department may be working on three different goals during the same year—collecting data on a goal for which there are already sound processes, developing activities in support of a second goal, and revising the activities for a third goal on the basis of data that have already been analyzed.

Regardless of how many goals the department is working on during a given year, each should have a timeline which identifies outcomes to be achieved by the end of the academic year.

10. Implement assessment plan & 11. Use data to improve processes

Continuous Improvement on the departmental level occurs when department level data are systematically collected and evaluated on a regular basis, and adjustments in inputs and processes are made as the result of the data analysis.

During the first year of the continuous improvement cycle, data are collected on specific measures. Such data constitute the baseline—a "business as usual" benchmark. In other words, this is the outcome that is obtained from current procedures with no special interventions. The department needs to decide whether or not the baseline measure indicates an acceptable level of achievement for the goal. Different types of goals will have different acceptable thresholds. For instance, it is probably unrealistic to expect that more than 80% percent of students will report "high" or "very high" levels of satisfaction with any particular departmental procedure, but it may be unacceptable if only 70% of students perform successfully on a writing assessment. The definition of acceptability or unacceptability is dependent on the importance of the goal, on the type of measure (objective or subjective), and on available benchmarks either within the university or externally.

If the measure identifies what is deemed to be an acceptable level of achievement, the department can be comfortable maintaining its current practices and move on to other department goals, with the intent of re-monitoring this specific goal in another couple of years.

Indicator/ Goal:				
YEAR 1		YEAR 2	YEAR 3	YEAR 4
$Activity_1$ $Activity_2$ $Activity_3$ $Activity_4$		New or revised $Activity_1$ New or revised $Activity_2$ New or revised $Activity_3$ New or revised $Activity_4$	New or revised $Activity_1$ New or revised $Activity_2$ New or revised $Activity_3$ New or revised $Activity_4$	New or revised $Activity_1$ New or revised $Activity_2$ New or revised $Activity_3$ New or revised $Activity_4$
$Measure_1$/ DATA $Measure_2$/ DATA $Measure_3$/ DATA $Measure_4$/ DATA BASELINE	1. Evaluate data against benchmarks 2. Set goals/ targets and timeline 3. Revise activities 4. Determine Costs of new/additional/ revised activities	$Measure_1$/ DATA $Measure_2$/ DATA $Measure_3$/ DATA $Measure_4$/ DATA	$Measure_1$/ DATA $Measure_2$/ DATA $Measure_3$/ DATA $Measure_4$/ DATA	$Measure_1$/ DATA $Measure_2$/ DATA $Measure_3$/ DATA $Measure_4$/ DATA

If the measure indicates an unacceptable level of performance, the department needs to examine the processes/activities to diagnose the problem. For instance, if only 70% of graduating students in a particular department are able to write in a manner expected by department members of college graduates (as evidenced by an analysis of student writing portfolios and student performance on a department-wide writing exam), then something appears to be wrong with the processes intended to develop writing skills. Questions that might arise include: Are there enough writing experiences in the major sequence? Are faculty providing helpful feedback to students on their writing? Have students completed required writing courses (general education) prior to starting the major? Using the answers to these questions, department faculty can begin to adjust activities/processes with the goal of improving students' writing performance in subsequent years. In the example presented, faculty might incorporate more writing experiences into their courses across the curriculum sequence, require peer feedback on written assignments before assignments are turned in to faculty, have students turn in outlines and drafts throughout the semester, have major written assignments due three weeks before the end of the semester to allow for faculty feedback and revision by students, require students to complete the general education writing courses prior to declaring a major, or require those with marginal writing skills to spend time in the campus' writing center. Such interventions should be evaluated in terms of practicality and cost, and those with the most potential implemented.

During subsequent years, the same measures are collected and compared against the baseline. New activities continue to be developed and revised as necessary based upon the data. Once acceptable and stable measure is obtained, the department can begin to monitor that goal less often and instead focus on other priorities.

12. Communicate results

Departments often overlook this last step. To be effective, assessment must be a transparent process—after the assessment plan is implemented, changes made as a result of the assessment process need to be made public. This is especially critical if the assessment plan requires the participation of students and faculty (and it is hard to imagine a plan that would not). Nothing will kill motivation to participate in assessment quicker than to fill out seemingly endless questionnaires and surveys and never see anything changed as a result of the feedback provided.

A Brief Example

Problem: A department chairperson and departmental faculty at a 7,000-student midwestern university noticed that more and more of their departmental meeting time was being taken up with individual student issues such as course substitutions and requests for waiver of GPA requirements along with students whose applications for graduation were being denied by the Registrar's Office because of degree requirements that had not been met. Additionally, faculty were complaining that a number of students were taking upper division courses without having completed the prerequisites. It also appeared from the nature of the student requests that they had received incorrect information from faculty. All of these issues seemed to involve advising.

Action: Faculty noted from their list of advisees the number of students who actually participated in formal advising, either during the preregistration period or throughout the academic year. The percentage of students varied widely among faculty members. Faculty also surveyed graduating seniors to get an indication of the percentage of students whose applications for graduation were approved without revisions by the Registrar. Neither of these percentages were satisfactory to faculty. The data made it clear that the present advising system was not working to the satisfaction of faculty nor to the advantage of students. Faculty decided to redesign their departmental processes surrounding advising. The redesign essentially revolved around two issues: getting information out to students and making student and university information available to faculty.

A departmental database was created that included every student major. This database allowed faculty to track a student's progress through the curriculum and included current local address, e-mail address, and phone number. Additionally, a department file was created for each student which contained similar information. A three year course schedule was published and widely circulated which listed the class