Linking Resource Allocation and Budgeting to Assessment through Integrated Processes: Integration of Goals at Micro, Macro, and Institutional Levels

Syed A. Rizvi
Professor and former Associate Provost for Institutional Effectiveness
College of Staten Island
City University of New York
Staten Island, New York

Tanja E. Jacobsen
Vice President of Sales & Marketing, Buzzfile Inc.
Adjunct faculty, Assistant Professor
Hofstra University
Hempstead, New York

ABSTRACT

This paper focuses on the development and implementation of the Institutional Assessment Plan through integrated processes in which the assessment informs the decisions on budgetary matters and resource allocation. One of the key challenges in developing and implementing an institutional assessment plan is that often the decisions at the micro, macro, and institutional level are not fully connected. For example, a request from department X for a faculty line (a micro-level decision/request) may have little or no influence on the decision made by the President/Cabinet that the institution will conduct Y searches in the next year (an institutional level decision). We address the issue of the disconnect between the decisions at the micro, macro, and institutional levels by developing an integrated processes model. That results in executing the assessment plan through integrated goals and an integrated action plan that minimizes duplication of effort and improves efficiency.

INTRODUCTION

As we entered the 21st century, the institutions of higher education in the United States have witnessed a significant shift in the way they are evaluated as the regional and national accreditation agencies in higher education are now significantly focused on the outcomes (goals) (Provezis, 2010). Whether it is student learning or service and operations to support the academic activity, institutions must define what they are trying to achieve in terms of expected outcomes at all levels. Furthermore, they must develop the processes to achieve and periodically measure the achievement of those outcomes. This is termed as outcome assessment. The results of the outcome assessment are to be used to change/improve the processes and inform the budgetary and resource allocation decisions, which would result in improving the level of achievement of these outcomes. Utilizing the results of the outcome assessment to improve the level of achievement of the outcomes is known as the closing the loop. Closing the loop marks the end of the current assessment cycle (and the beginning of the next assessment cycle).

If all this sounds complicated then probably it is. Outcome assessment is all about improvement and using our resources more efficiently. It should not be a burden or tax our already scarce resources. One reason that assessment becomes a burden or rather challenging is the multi-level hierarchical structure of academic institutions where often the processes at different levels are not fully connected. Most academic institutions, if not all, have three distinct levels where decisions are made:

1. Micro level: Academic departments and administrative units responsible for providing services and operations to support academic activity fall under this category. As far as assessment is concerned, this is where all the action is. For example, assessments of student learning outcomes (goals) occurs at the academic department level. Similarly, the assessment of services and operations goals occurs...
at the unit level by the specific unit that offers the services or is responsible for the operations in question. These assessments generate actions, decisions, requests, etc., at the lowest level.

2. Macro level: This is where middle-level decisions are made at the highest level of the administrative arms of the institution such as Academic Affairs, Student Affairs, Finance/Administration, etc.

3. Institutional level: This is where the key budgetary and resource allocation decisions such as number of searches to be conducted institution-wide during the upcoming year or renovating a building/laboratory etc., are often made by an institution level body such as the Cabinet or a committee and requires final approval by the President of the institution.

The entities at each of the three levels often have specific goals and processes to achieve them; however, it is the lack of inter-level articulation of the goals and processes at each level that is the cause for inefficiencies and could make the outcomes assessment process at the institutional level a daunting task. Our study has shown that it is one of the biggest challenges for developing Institutional Assessment/Effectiveness Plan at many institutions.

Our current research focuses on developing an integrated process model to seamlessly link the budgetary and resource allocation decisions at the institution level to the outcomes assessment at the micro level. Process or program level integration has been applied in the business world as well as in government agencies to improve efficiencies (Adams, 2004) (Commerce, 2004). Two key components of this model are integrated goals and an integrated action plan. This paper presents a framework to create fully integrated goals at the micro, macro, and institutional level. The framework is easily adaptable to any institution’s specific needs if one wishes to use it.

The rest of the paper is organized as follows: Section II briefly describes the key components of an Institutional Assessment/Effectiveness Plan. Section III presents an approach to the integration of goals from micro to institutional levels. Section IV concludes the paper with an application of our approach to developing integrated goals and discussion of future research on this topic.

**Institutional Assessment/Effectiveness Plan**

An institutional assessment plan is a four-step planning-assessment cycle, which starts with institutional goals. Institutional goals are aligned with the mission of the institution. Setting goals will have no meaning if we cannot achieve them. Therefore, goals must be measureable, and we need to have the means (strategies) to achieve those goals. We need to assess the goals periodically to see how well we are achieving our goals. And finally, we need to use the results of assessment to improve the level of achievement of the goals (changes in programs, resource reallocation, budgetary adjustments etc. informed by the assessment results). In summary, the four components of an assessment plan an be described as follows (see Figure 1):

1. Defining institutional goals, which are clearly articulated
2. Implementing strategies to achieve those goals
3. Assessing achievement of those goals
4. Using the results of those assessments to improve programs and services and inform planning and resource allocation decisions.

![Figure 1: Assessment plan as the four-step planning assessment cycle](image-url)
Integration of Goals

An assessment plan starts with goals, and that is exactly where the integration of all assessment related activities within the institution start. The key to integrated assessment is to integrate micro-level goals (at the academic department or unit level) to an institutional-level goal. We will start with institutional goals for an academic institution.

The term “Goal” describes a desired outcome or accomplishment. In the business world, the concept of SMART goals has been used widely (Doran, 1981). Each letter in “SMART” represents a specific characteristic of the goal as described below:

- S: Specific
- M: Measurable
- A: Achievable
- R: Relevant
- T: Timebound

If a goal is “SMART,” we can define specific activities/processes to achieve the goal. However, in large organizations such as academic institutions, the institution level goals could be very broad and may not be achievable by a specific set of activities/processes. In that case, a pathway to achieve the goal in the form of strategy can be defined first. Those strategies can then be transformed into more specific goals. We can continue to repeat the process of defining strategies and transform them into more specific goals at the next level (keep adding levels of specificity) until we reach the level where we can define specific activities/processes to achieve the specific goals at the level just above.

We use the process outlined above to develop integrated goals for an academic institution. Figure 2 illustrates this concept for an academic institution. The key to integrating goals in a multi-level environment is to transform the strategies to achieve a broad goal at the highest level to more specific goals at the level below. This process continues to the level where goals become so specific that one or more activities/processes can be specified that will achieve a specific goal.

Application

All academic institutions, whether public or private, would have two key components in their mission: one related to academic excellence and other related to student success. Accordingly, institutions will have one or more goals associated with these two key components of their mission. In fact, every academic institution should

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**Figure 2**

INTEGRATING GOALS AT THE THREE LEVELS.
have institutional goals in these areas (among any other goals they choose to have, which are unique to their institution) because they are related to the core business of academic institutions. Without that they will not be an academic institution. The number of goals or specific goal statements are not important and each institution can have goals suited to their specific situation. The only thing that matters at this level is that the institution-specific goals are designed to achieve the mission of the institution in the two key components. So here we formally state the two key components of the mission of an academic institution:

1. **Academic Excellence**
2. **Student Success**

Let’s consider these key components of the mission of an academic institution one by one, starting with the first key component “Academic Excellence.” Once an institution has defined a goal (or goals; as mentioned earlier, an institution can choose as many institutional goals as the institution aspires to have), the next step is to develop strategies to achieve that goal(s). So, the question is, how do we contribute to academic excellence? One can make a long list of things, which can be done to contribute to academic excellence. Someone else can have another list, probably quite different from the first one, to do the same. However, it’s hard to argue that we can make a meaningful contribution to academic excellence without strengthening our academic programs and have faculty who excel in teaching and research or creative work. Therefore, the two must have strategies to contribute to academic excellence are:

1. Strengthen academic programs
2. Have faculty with excellence in teaching and research/creative work

We integrate the goal(s) at the institutional and macro levels by transforming the strategies to achieve the institutional goal(s) into more specific goals at the macro level. In other words, at the macro level (Provost Office in this case) we will have (among others) two key goals: (1) strengthen academic programs and (2) recruit and retain faculty with excellence in teaching and research/creative work. Note that the focus of this paper is to integrate assessments, therefore, only the “strengthen academic programs” is of interest to us. However, for a complete institutional assessment/effectiveness plan both goals will be considered.

Note that the macro level goal “strengthen academic programs” is still pretty broad and we can use several strategies to achieve this goal. For example, seeking/maintaining external accreditation is one way to strengthen a program. Periodic program review through self-study is another way to achieve this objective. Continuous program improvement through outcome assessment is yet another way, which is also required by the regional accreditation agencies. The Provost Office at a particular institution may choose to use a combination of these three strategies along with possible others they can think of. However, all departments will have a program-level assessment as one of the goals to strengthen their programs. In this way, the macro level strategies “program level assessment is transformed into a micro level goal for academic departments. At the micro level (department level) each department and/or program can now choose a set of activities/process suitable to their situation to achieve this goal. In this way, we have integrated micro, macro, and institution level goals and thus the assessment of those goals is also integrated. Table 1 illustrates the integration of student learning goals (program level assessment) at departmental level into the institutional goal(s) related to “academic excellence.”

Note that, a clear assignment of responsibility and flow of information among different entities involved in all assessment related activities at the institution may require creating a framework within the college’s governance structure to make assessment a collaborative effort between the administration and the faculty while preserving faculty prerogatives and leadership on the assessment of student learning. That can be achieved by creating a standing assessment subcommittees of the appropriate institution-wide committees such as curriculum, general education, etc. These assessment subcommittees can work closely with the Office of Institutional Effectiveness to provide oversight of the assessment of student learning at the institution thus fostering faculty involvement and leadership in the assessment of student learning.

Let’s now consider how student learning goals (program-level assessment) at the departmental level can also be integrated into the institutional goal(s) related to “student success.” One argument, among many possible depending upon each institution’s unique situation, would be that student success, after they graduate, is highly related to what they have learned during the course of their study. Therefore, strategies to achieve this goal must include improving student learning. Students are more likely to be successful if they finish their coursework in a timely fashion and do not have gaps in their course of study. Therefore, improving the graduation and retention rate would also contribute to improving the success of our students. Other strategies may include improving the quality of campus life & services. Probably, one can think of a few more, but these are the ones that can impact the student success the most. Therefore, we will use the following...
three strategies for achieving the goal “improve student success”:

▶ Improving student learning
▶ Improving the graduation and retention rate
▶ Improving quality of campus life & services

As we have done earlier, we will integrate the assessment at the institution, macro, and micro-level by turning the strategies to achieve goals at a particular level into more specific goals at the next lower level. Again, we will only consider the strategies that can be related to assessment. In this case, an intra-level connection can be created between two macro level goals, “strengthen academic programs” and “Improving student learning” with one shared strategy of “program level assessment.”

The administrative arm of the institution overseeing building and grounds perhaps will have a goal of improving the quality of campus life and the strategy to achieve this goal will be the assessment of the operational outcomes. The administrative arm of the institution overseeing student affairs will have a goal of improving student support services and the strategy to achieve this goal will be the assessment of student support services. The administrative arm of the institution overseeing enrollment will have a goal of improving the quality of academic support services and the strategy to achieve this goal will be the assessment of academic support services etc., should be the part of the institutional assessment plan.

The focus of our ongoing work is to develop the framework for an integrated action plan for closing the loop in institutional assessment cycle, which can easily be adapted to any institution’s specific needs.

<table>
<thead>
<tr>
<th>Level</th>
<th>Key Component of the Institutional Mission</th>
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<tbody>
<tr>
<td>Institution</td>
<td>Academic Excellence related goal(s) (Institution specific)</td>
</tr>
<tr>
<td>Strategy</td>
<td>Strengthen academic programs</td>
</tr>
<tr>
<td></td>
<td>Have faculty with excellence in teaching and research/creative work</td>
</tr>
<tr>
<td>Macro</td>
<td>Strengthen academic programs through means suitable and consistent with the disciplinary norm of a particular program.</td>
</tr>
<tr>
<td>Strategy</td>
<td>Program level Assessment on a three-year staggered cycle</td>
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<tr>
<td></td>
<td>External Accreditation/Self Studies on five-year staggered cycle (or as required by an external accreditation agency)</td>
</tr>
<tr>
<td></td>
<td>Institution specific</td>
</tr>
<tr>
<td>Micro</td>
<td>Conduct program-level assessment (1/3 of the departments at the institution each year) etc.</td>
</tr>
<tr>
<td>Goal(s)</td>
<td>Conduct self-study (1/5 of the departments at the institution each year).</td>
</tr>
<tr>
<td>Activity/ process</td>
<td>As determined by the specific department/program</td>
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<td></td>
<td>As determined by the specific department/program</td>
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<tr>
<td></td>
<td>Institution specific</td>
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<td>Institution specific</td>
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</tbody>
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Table 1
Integration of student learning goals at departmental level into the institutional goal(s) related to “academic excellence.”
REFERENCES


