Assessment Framework for Academic and Administrative Support Services

Office of Institutional Research and Program Assessment
Baruch College – City University of New York

September 1st, 2008

Assessment Framework for Academic and Administrative Support Services

Table of Contents

Assessment Framework for Academic and Administrative Student Support Services

INTRODUCTION

The purpose of this document is to provide an assessment framework for academic and administrative departments that support institutional resources and provide services for students. Each offers a distinctive set of services in response to the Institution's needs. Collectively, they contribute substantially to academic success and student persistence to graduation. Assessment is a process that leads to the effective use of institutional resources and student support services. The assessment framework described in this document will enable academic and administrative departments to develop assessments for:

- Department Annual Reports
- CUNY Central Reports
- Federal and State Reports
- Accreditation Reports
- Grant Proposals
- Middle States Commission on Higher Education Self-Study
- Other reports requiring assessment

WHAT IS ASSESSMENT?

ASSESSMENT IS A PROCESS that involves:

- Relating your mission, resources, and activities to measurable outcomes

- Systematically collecting and analyzing data to determine to whether and to what extent outcomes have been achieved

- Using the data results to identify strengths and weaknesses of your Program/Unit and

- Implementing improvement strategies

The purposes of assessment are summarized below:

'1. To improve – The assessment process should provide feedback to determine how the administrative unit can be improved.

2. To inform – The assessment process should inform department heads and other decision-makers of the contributions and impact of the administrative unit to the development and growth of students.

3. **To prove –** The assessment process should encapsulate and demonstrate what the administrative unit is accomplishing to students, faculty, staff and outsiders. *(Adapted from WEAVE and Wisconsin).*

4**. To support –** The assessment process should provide support for campus decision-making activities such as unit review and strategic planning, as well as external accountability activities such as accreditation. **'**

Source: University of Central Florida 6 UCF Administrative Assessment Handbook September 2005
Information, Analysis, and Assessment

How is Assessment Different from Annual Reporting?

- Annual reports focus on **inputs** (resources invested and activities undertaken). Assessment reports focus on **outcomes** (what participants know and are able to do).

- Assessment focuses on processes, program components and aggregate outcomes and not on **individual** staff or student performance.

- Annual Reports list resources, activities, services and successful outcomes. It is not clear how programs goals are aligned with the wider goals of the College. It is difficult to identify strengths and weaknesses of specific components, activities, services, and what students actually learned as a result of program interventions.

- Annual reports that do include some form of data analysis usually do so because of federal or state reporting requirements. They do not lead to strategies to improve program implementation.

FOUR STEP ASSESSMENT PROCESS

Step 1 Design a Program Logic model

- Define the **Mission** of the Program/Academic Unit
- Indicate **Inputs** (staff, time, equipment) invested
- Indicate **Activities** (workshops, training, counseling) undertaken
- Indicate **Participants** (students, administrators, faculty, staff)
- Define intended **Operations/Services Outcomes** (# of workshops, # of students/Faculty served, % satisfied)
- Define intended **Learning Outcomes** (increased knowledge and skills, applied skills, changed policy, increased research, better writing skills)
- Align Learning Outcomes with **Strategic Plan** Learning Outcomes

Step 2 Design and Implement Assessment Plan

- Select Program Component or Intervention to assess
- Develop Assessment Questions
- Define Indicators of success for each assessment question
- Indicate Data Sources
- Indicate Methods of data collection
- Indicate Timeline for the assessment
- Indicate Person(s) responsible for data collection
- Select data analysis methods (counts, comparisons, percents)
- Indicate how data will be disseminated

Step 3 Analyze and Document Assessment Results

- Analyze assessment data
- Summarize results in a report
- Indicate program changes as a result of assessment

Step 4 Implement Improvement Strategies

- Implement Changes
- Modify Program Logic Model to reflect program changes for next assessment cycle.

In the sections that follow, each step is explained in more detail.

STEP 1: Designing a Program Logic Model

Definition of a Program Logic Model

> **'A systematic and visual way to present and share your understanding of the relationships among the resources you have to operate your program, the activities you plan, and the changes or results you hope to achieve – It is a picture of how you believe your program will work'** ***The Kellogg Foundation (2002) (p.1).***

The Logic Model is a practical and useful starting point for carrying out an assessment of your program. This framework relates mission, activities/processes and, operations to intended outcomes through words, pictures, flowcharts, and/or maps. Arrows are used to match activities/processes and operations to specific outcomes.

LOGIC MODEL

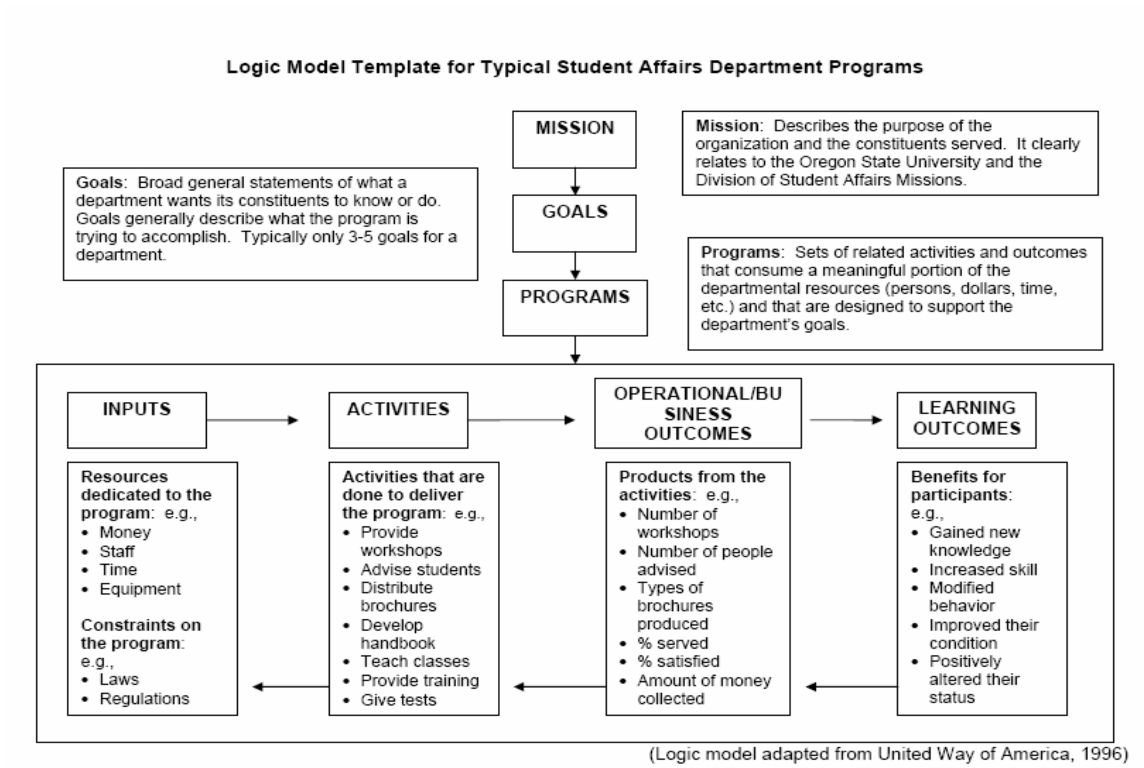
Administrative Unit:
Mission Statement or Situation:

INPUTS	**OUTPUTS**		**OUTCOMES – IMPACT**	
	Activities	Participants	Short Term	Medium Term/Long Term Outcomes
What we invest Staff Volunteers Time Money Materials Equipment Technology Partners	***What we do*** Workshops Meetings Counseling Facilitation Assessments Product dev. Media work Recruitment Training	***Who we reach*** Students Faculty Administrators others	***What we Produce*** **Operational/Service Outcomes** Number of Workshops held Number attended workshops/ Number of faculty trained Number of Counseling sessions Type of technology provided Number who used technology % Satisfied with services % who used diagnostic	***What do participants know and able to do*** **Learning Outcomes** Awareness –increased awareness Knowledge – gained new knowledge Skills – increased skills Aspirations – increased aspirations Motivation – more motivated Behaviors – studied more, drank less Practice – applied new skills, teaching methods Decision-making – made decisions Policies – enacted new policies Social action – joined student club Civic -- voted
IF ➔	THEN➔ IF➔	THEN➔ IF➔	THEN➔ IF➔	THEN➔ OUTCOME
Assumptions --The theory of action and principles that guides the program.	Environment –influential factors The program's context and external conditions which influence the success of the program. The program does not exist in a vacuum. Context includes: politics, family circumstances, cultural milieu, demographics, economics, values, biophysical environment, policies, and services (Ellen-Taylor Powell, 1998, pp.2-16).			

(Adapted from Ellen Taylor-Powell, 1998,pp2-3)

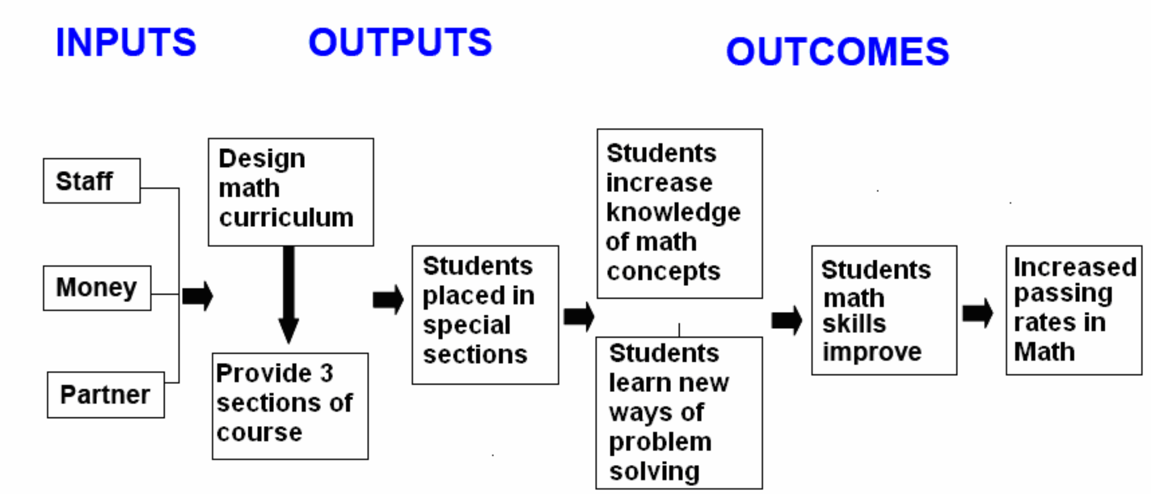
STEP 1: Designing a Program Logic Model (continued)

Example of Logic Model For Student Affairs Programs



Source: Oregon State University, (2006). Assessment: A thinking person's process, pp. 21.

Example of Logic Model to Improve Performance in Math



STEP 1: Designing a Program Logic Model (continued)

Outcomes, Goals and Objectives

Outcomes, goals and objectives are statements about the expected result(s) of program activities:

- Goals are more broadly stated than outcomes or objectives, but as with the latter two, they should be attainable and measureable.

  Example:

  Goal. Students will increase their math skills as a result of tutoring.

  Outcome/Objectives. Students will be able to use calculus in real world applications as a result of tutoring.

- Outcomes and Objectives mean the same thing in this document. They are specific statements about the program's expected results. Usually, several outcomes or objectives are associated with a broadly stated goal.

Example:

Goal. To prepare students with the skills needed to apply for a job.

Operational/Service Outcome. All graduating students will receive career Advisement.

Learning Outcome. All graduating students will be able to complete a job application form.

The terms Operational/Service outcome and Learning outcome are used throughout this document. When you begin to develop your outcomes for your Logic Model, it's very important that you align them with any or all of the following:

- Your administrative department's mission, goals and outcomes/objectives statements.
- The Institution's Strategic Plan goals and outcomes.
- The Program Managers Performance (PMP) goals and outcomes.
- Other Federal and State assessment outcome requirements.

STEP 1: Designing a Program Logic Model (continued)

Learning Outcomes for students

The matrix below is an example of how to align your Program/Unit's outcomes with the College-wide student learning outcomes.

Sample -- Aligning Your Outcomes with College-wide Student Learning Outcomes

Date: _______________ Administrative Unit: _____________________

Student Learning Outcomes (from Strategic Plan 2006-2011)

A. Excellent Communication
B. Strong Critical Thinking and Reasoning
C. Ethical Awareness
D. Information Literacy
E. Appreciation for Diversity
F. Social/Civic Responsibility
G. Ongoing Personal Development

Indicate Student Learning Outcomes (not activities) from your Program Logic Model that address the above learning goals for Baruch Students in your department.

Your Program/Unit's Student Learning Outcomes	**College-Wide Student Learning Outcomes**						
	A	**B**	**C**	**D**	**E**	**F**	**G**
1. Students use VOCAT to monitor and improve their oral presentation skills	✓						
2. Students attending technology workshops pass the Simnet exam				✓			
3. Students participating in clubs and student activities develop an appreciation for diversity					✓		
4. Students receiving academic counseling spend more time studying							✓
5. Students receiving tutoring in math improve their performance in this subject area		✓					

Adapted from Oregon State University. ***Division of Students affairs Assessment Handbook, -Assessment- a thinking person's Process, September 2005.***

STEP 2: Designing and Implementing an Assessment Plan

Select Program Component or Intervention to Assess:

The first step in developing an assessment plan is to determine what part(s) of your program you wish to assess to determine if it is working as planned. The logic model that you developed in the previous section will serve as a useful framework for deciding what element(s) of your program you want to assess.

It is not necessary to assess every component or intervention every semester. However, you need to develop a timeline to indicate when various components will be assessed. A sample assessment cycle is shown below:

Sample Assessment Cycle

Program Component or Intervention	Outcome (from Logic Model)	When Assessed	Report Due	Who is Responsible
Math Tutoring Program	Outcome 1	Fall 2008	Dec 31	Jimmy
	Outcome 2	Spring 2009	June 1	Astrid
Pre-grant Awards	All Outcomes	Fall 2008	Dec 31	Alan
Post-grant Awards	All Outcomes	Fall 2009	Dec 31	Melissa

Once a timeline has been set to assess various program components or interventions an assessment plan can be developed for the current semester.

STEP 2: Designing and Implementing an Assessment Plan (continued)

A model assessment plan is shown in the chart below. Each column in the chart is described below:

1. **Assessment Questions –** These are questions about your program components. They are not the same as those on student and faculty surveys. A survey is a method for collecting data. Responses to questions on a survey are used to assess whether a program component has achieved its intended outcomes.

Types of Assessment Questions – Formative and Summative.

Formative Questions (quantity and quality of operations and services) – Focus on the level of resources necessary to carry out program activities; level of effort necessary to achieve program outcomes; the level of outreach; and the level of satisfaction with services and operations.

Summative Questions (learning outcomes) – Focus on whether and to what extent the program has achieved its goals for student and faculty learning in terms of knowledge, awareness, attitudes, behavior etc.

2. **Indicators of Success –** What are the specific, measurable characteristics or changes that represent achievement of an outcome? Indicators are directly related to the outcome and help define it. Examples are provided in the table below entitled 'Types of Indicators of success'.

3. **Data Sources –** Where and from whom will the data needed to address the assessment questions be obtained? They might be from program documents and existing data bases; from program participants, students, faculty, and staff; and from other records and observations.

4. **Methods of Collecting Data –** What methods will be used to collect the data from the various data sources? These may include surveys, focus groups, interviews, tests, and program logs.

STEP 2: Designing and Implementing an Assessment Plan (continued)

5. **Timeline –** When will the data be collected? For example, a survey may be administered at the beginning and at the end of the semester.

6. **Responsible Person(s) –** Who will be responsible for collecting the data? They may include staff within a given administrative unit or staff from other offices and entities within the institution.

7. **Data Analysis –** How will the data interpreted? Data analysis methods range from simple counting and comparing to more sophisticated methods such as analysis of variance, or regression analysis.

8. **Dissemination of Results –** With whom will the data findings be shared and in what format? They may include faculty, department heads, external evaluators, and accreditation evaluators. Formats for disseminating the results include technical reports, executive summaries, pamphlets, newsletters, and oral presentations.

STEP 2: Designing and Implementing an Assessment Plan (continued)
Sample Assessment Plan

1 **Questions** (Formative and Summative)	2 **Indicators** (Evidence)	3 **Data sources** (Where will the data come from)	4 **Method of Data Collection** (How will it be collected)	5 **Timeline** (When will the data be collected)	6 **Responsible person(s)** (Who will be responsible for collecting the data)	7 **Data Analysis** (How will the data be analyzed)	8 **Dissemination of Results** (Who will receive the results)
Were there sufficient staff, funds, equipment?	# of Staff # Computers # Funding sources	Program Logs or reports of financial/staffing/ equipment status	Review of program records	Beginning of academic year	Staff	Compare actual resources with anticipated	Department head, funders
Are students who need assistance in mathematics being reached?	# % of students who failed math 2003 receiving tutoring	Description of tutoring sessions. Logs or reports of actual tutoring sessions	Review of program records	End of Academic year	Staff	Description of participants who were reached.	Administrative Unit Director
What activities were implemented in preparation for commencement day	Plans developed to coordinate commencement activities	Logs, reports, maps of activities undertaken	Review of program records	Beginning of Spring and fall terms	Staff	Description of commencement plan	Administrative Unit Director
How satisfied are students with the tutoring they received in mathematics	#, % of students reporting positive/negative reactions	students	Administration of student survey	End of academic year	Staff	Analysis of survey responses	Administrative Unit Director
Did pass rates in mathematics improve	#, % of students who failed mathematics decreased	SIMS database	Student records	End of academic year	Institutional Research	Tabulate pass rates	Administrative Unit Director

STEP 2: Designing and Implementing an Assessment Plan (continued)

Examples of Types of Indicators of Success

Outcomes	Definition	Indicators
Quality of Service Outcomes	Quality of services provided by the academic or administrative unit	Tangibles: Appearance of physical facilities, equipment, personnel, printed and visual materials
		Reliability: Ability to perform promised service dependably and accurately
		Responsiveness: Willingness to help constituents and to provide prompt and timely service
		Competence: Possession of required skill and knowledge to perform service
		Courtesy: Politeness, respect, consideration and friendliness of personnel
		Credibility: Trustworthiness, believability, honesty of the service provider; having the best interest of the constituent at heart
		Security: Freedom from danger, risk or, doubt; appropriate confidentiality
		Access: Approachability and ease of contact
		Communication: Listening to constituents and acknowledging their comments; Keeping constituents informed in a language they can understand
		Understanding the Constituent/Empathy: Making the effort to know the constituents and their needs; providing individualized attention; recognizing repeat users
Quantity of Service Outcomes	These outcomes generally have to do with the number of activities/events and satisfaction with them	Number of workshops presented
		Number of students advised
		The percent of students who were satisfied with the service Types of brochures produced
Learning/Action (Outcomes). What students know and are able to do	These are measurable expected results of an instructional activity or program effort. Outcomes can be classified based on Bloom's taxonomy.	Knowledge – recall/remember information
		Comprehension – requires some level of understanding
		Application – requires the use of previously acquired information in a new setting
		Analysis – identify logical errors or differentiate among facts, opinions, assumptions, hypotheses, or conclusions
		Synthesis – produce something new or original
		Evaluation – form judgments about the value or worth of methods, ideas people, or products that have a specific purpose

Adapted from Oregon State University (2006). Assessment: A thinking person's process, p. 7-8, p. 37-41.

STEP 2: Designing and Implementing an Assessment Plan (continued)

METHODS FOR COLLECTING ASSESSMENT INFORMATION

• **Survey:** collecting standardized information through structured questionnaires to generate quantitative data. Surveys may be mailed, sent electronically, completed on-site or through face-to-face or telephone interviews. Sample surveys use probability sampling while informal surveys do not.

• **Interviews:** information collected by talking with and listening to people, either face-to-face or over the telephone. Interviews range on a continuum from tightly structured (as in a survey) to free-flowing, conversational interviews.

• **Observation:** collecting information through "seeing" and "listening." Observations may be structured or unstructured.

• **Document Analysis:** use of content analysis and other techniques to analyze and summarize printed material and existing information.

• **Case Study:** in-depth examination of a particular case (program, group of participants, single individual, site/location). Case studies use multiple sources of information and methods to provide as complete a picture as possible.

• **Group Assessment:** use of the group process to collect assessment information such as nominal group technique, **focus group**, Delphi, brainstorming and community forums.

• **Expert or Peer Review:** examination by a review committee, panel of experts or peers.

• **Portfolio Reviews:** collection of materials, including samples of work that encompass the breadth and scope of the program/activity being evaluated.

• **Testimonials:** individual statements by people indicating personal responses and reactions.

• **Tests:** use of established standards to assess knowledge, skill or performance as in pen-and-pencil tests or skills tests.

• **Photographs, Slides or Videos:** use of photography to capture visual images.

• **Diaries or Journals:** recording of events over time revealing the personal perspective of the writer/recorder.

• **Logs:** recording of chronological entries, which are usually brief and factual.

• **Other:**

Creative Expression: use of art forms to represent people's ideas and feelings through stories, drama, dance, music and art.
Unobtrusive Measures: the gathering of information without the knowledge of the people in the setting such as the wear and tear on a "planted" mat in front of a display.

Adapted from Ellen Taylor-Powell, 1998, pp. 57

STEP3: Analyzing and Documenting Assessment Results

Step 3 involves analyzing the data and documenting the results so that it can be shared with others. Use averages, counts, percents and rates in charts, tables and graphs to summarize your data. More sophisticated techniques of analyzing and summarizing data include ANOVA(analysis of variance), and regression analysis. A simple report format is provided below:

(1) Assessment Question (s): These are the questions listed in the first column of the assessment plan you developed in the previous stage. These questions should not be confused with the questions that you may have developed for a student or faculty survey. Assessment questions are questions that you ask about various components of your program/unit and how they work to produce your intended outcomes. Questions on a survey given to students or faculty lead to responses that enable you to determine whether a specific component of your program is working or not.

(2) Outcome(s) Addressed: These are the outcomes (service and learning outcomes) listed in the last 2 columns of your Program Logic Model and are the focal point of your assessment questions listed in point 1 above.

(3) Data Collection and Method (s) of Analysis: Provide a brief summary of the methods you used to collect and analyze your data.

(4) Results of Assessment: Highlight your major findings by creating bullet points. While a few chart, graphs or tables may be used most stakeholders do not have the time to review detailed results. More detailed information such as the actual survey questionnaire, charts, graphs, and narrative should be placed in an appendix as supporting documentation of your assessment efforts.

(5) Follow-up Actions(s): In this section, indicate what actions you will take as a result of your assessment and when changes will be implemented.

STEP 3: Analyzing and Documenting Assessment Results (continued)

SAMPLE ASSESSMENT REPORT

Seek Program Fall 2007 Assessment Report

Department /Administrative Unit: **SEEK**

Assessment of Counseling, Tutoring and Technology

Evaluation Questions

This assessment focused on the major services provided by Baruch's SEEK Program- **counseling** and **tutoring,** as well students satisfaction with initiatives that support their use of **technology**. The heart of counseling is the relationship between student and counselor. Without trust, students will not share their greatest concerns and issues, and counseling cannot take place. Therefore, the program assessed whether or not students had developed a positive relationship with their counselors. Were counselors available to students when needed? Were counselors helpful and resourceful? Did students feel that they could connect with their counselors? The other important component of the SEEK program is the academic support offered to students. Was tutoring available in the subjects requested and at convenient times for students? Finally, SEEK offers workshops in technology to help students pass the Simnet exam (an exam in EXCEL that students must pass to be eligible to take the required course in computers), a graphing calculator program and a laptop loan program; the program also has computers available in the SEEK office for student use.

Outcomes Addressed

- Counseling is accessible to students
- Students are comfortable with and trust the counseling process
- Tutoring is accessible to students
- Tutoring is available in student's desired discipline
- Student found technology workshops helpful

Data Collection and Method (s) of Analysis

An anonymous online computer questionnaire was sent to all SEEK students enrolled in the fall 2007 semester except for incoming freshmen. 291 students or approximately 53% of the students responded to our questionnaire. SEEK students were asked to indicate whether they --*strongly agree, agree, are neutral, disagree or strongly agree* --with statements pertaining to counseling and tutoring.

STEP 3: Analyzing and Documenting Assessment Results (continued)

SAMPLE ASSESSMENT REPORT (continued)

Results of Evaluation:

Counseling: Overall, students perceived SEEK Counselors as knowledgeable, resourceful, helpful and easily accessible. 60 students responded to the open ended question, “Do you have any further comments about your counselor or suggestions on how SEEK could improve the counseling program?” Most students who responded expressed great appreciation and acknowledgment of their counselors.

1. Strengthen the programming for sophomores, juniors and seniors. Some students felt that too much of the emphasis is put on freshmen
2. Some students wanted more career counseling
3. One student mentioned the need for more information about liberal arts majors

Tutoring: Only 65% of the students who responded used the SEEK tutorial services. Of these, about 75% said that they have received tutoring in the discipline requested and at a convenient time. Most felt that the tutorial coordinator was very accommodating.

Technology: Over 78% of students were satisfied or very satisfied with the calculator loan program. Only 55.31% of students were satisfied or very satisfied with the lap top program. Students felt that there were not enough laptops to borrow and felt frustrated that freshmen were given the opportunity to borrow computers before everyone else. Only 3.78% of students felt that the EXCEL workshops were not helpful. The rest felt that the workshops were helpful. The majority of students (56.7%) were not satisfied or neutral with the availability of computers in the SEEK office.

Open-ended questions: There were 191 responses to the open ended questions.[1]

Follow-up Action(s)

- Get more precise figures on the percentage of SEEK students who use our tutoring services. We know that 65% of the respondents used our services but it is unclear what the overall percentage really is. There may be a large number of students who did not respond to the survey but use tutoring services. In fact, we are certain that the majority of our freshmen use tutoring, yet they did not take participate in this survey at all. The kind of information is vital to running an effective tutoring operation. SEEK purchased an electronic monitoring system in spring 2006 that could take care of this issue once it is installed. This is a priority for us, and one that needs immediate attention.

[1] Please note that a complete list of survey questions sent to students and student responses are available upon request.

STEP 3: Analyzing and Documenting Assessment Results (continued)

SAMPLE ASSESSMENT REPORT (continued)

- Determine the disciplines for which students could not get tutoring. Once again, the electronic system would capture this information more easily and consistently.

- Expand not only our laptop loan program but have more computers available to students in the SEEK office. SEEK pays the technology fee for all SEEK students. This amounts to over $90,000 a year. Some of this money should be utilized to support SEEK students who come from economically deprived households with their technology needs. Other SEEK programs at CUNY have their own computer labs supported technology fees. Here at Baruch we are not looking to have our own lab but to expand a much utilized and requested service for SEEK students.

- Provide (as mentioned above) more services specifically designed for sophomores, juniors and seniors.

STEP 4: Implementing Improvement Strategies

At this stage, follow-up actions in the assessment report should be implemented. At the same time, adjustments should be made to your Program Logic Model to reflect changes in activities, and outcomes to prepare for the next assessment cycle. Since follow-up actions may require additional resources, and buy-in from other stakeholders, the findings of the assessment should be broadly distributed.

APPENDIX 1

PROGRAM LOGIC MODEL TEMPLATE

Administrative Unit:
Mission Statement or Situation:

INPUTS	**OUTPUTS**		**OUTCOMES - IMPACT**	
	Activities	Participants	Short Term	Medium Term/Long Term Goals
What we invest ➔	***What we do*** ➔	***Who we reach*** ➔	***What we produce*** **Operations/Service Outcomes** ➔	***What do participants know and able to do*** **Learning Outcomes** ➔
Assumptions	Environment Influential factors			

APPENDIX 2

Aligning Your Outcomes with College-wide Student Learning Goals Template

Date: ________________ Administrative Unit: ______________________

Student Learning Goals (from Strategic Plan 2006-2011)

A. Excellent Communication
B. Strong Critical Thinking and Reasoning
C. Ethical Awareness
D. Information Literacy
E. Appreciation for Diversity
F. Social/Civic Responsibility
G. Ongoing Personal Development

Indicate Learning Outcomes (not activities) from your Program Logic Model that address the above learning goals for the Baruch Students you serve.

Your Learning Outcomes	**Learning Goals**						
	A	**B**	**C**	**D**	**E**	**F**	**G**
1.							
2.							
3.							
4.							
5.							
6.							
7.							

APPENDIX 3

Assessment Cycle Template

Department:____

Program Component or Intervention	Outcome (from Logic Model)	When Assessed	Report Due	Who is Responsible

Appendix 4

ASSESSMENT PLAN TEMPLATE

Department:____

Program/Project Component:____**Semester**__________

Questions (Formative and Summative)	**Indicators** (Evidence)	**Data sources** (Where will the data come from)	**Method of Data Collection** (How will it be collected)	**Timeline** (When will the data be collected)	**Responsible person(s)** (Who will be responsible for collecting the data)	**Data Analysis** (How will the data be analyzed)	**Dissemination of Results** (Who will receive the results)

Appendix 5

Reporting Assessment Results Template

<u>Department /Administrative Unit:</u>

For each Component of your Program that was assessed, please summarize your findings under the following headings:

(1) Assessment Question (s):

(2) Outcome(s) Addressed:

(3) Data Collection and Method (s) of Analysis:

(4) Results of Assessment:
(Narrative, Charts, Graphs, Tables)

(4) Follow-up Actions(s)

REFERENCES

Baker, A. M., & Sabo, K. J. (2004). Participatory Evaluation Essentials: A Guide For Non-Profit Organizations And Their Evaluation Partners. The Bruner Foundation.

Jollen Killion, 2003, *8 Smooth Steps, Theme/Evaluation*, JSD FALL 2003 VOL. 24, NO. 4 WWW.NSDC.ORG. National Staff Development Council.

Hamilton, J. & Bronte-Tinkew, J. (2007). Logic Models in Out-of –School Time Programs. What are they and why are they important. Child Trends Research-To Results. Publication # 2007-01.

Nichols, J. O. (1991). The Departmental Guide to Implementation of Student Outcomes Assessment and Institutional Effectiveness. Agathon Press: New York.

Parents As Teachers, National Center. (2005). Program Evaluation Handbook: Measuring Program Impact.

Schmitz, C. C., & Parsons, B. A. (1999). Everything You Wanted To Know About Logic Models But Were Afraid To Ask. http://www.insites.org/documents/logmod.htm

Sun Associates. (2006). Logic Map Elements for Project. http://www.sun-associates.com/necc2006/eval/logicmapelements.pdf

Taylor-Powell, E., Jones, L., & Henert, E. (2002) *Enhancing Program Performance with Logic Models*. The University of Wisconsin-Extension Web site offers a free online course on creating and designing logic models at http://www1.uwex.edu/ces/lmcourse/.

United Way of America. *Measuring Program Outcomes: A Practical Approach*. 1996. http :// national. unitedway.org/ outcomes/resources/mpo/.

University of Central Florida. *UCF Academic Program Assessment Handbook, Information, Analysis, and Assessment*, February 2005.

University of Missouri-Columbia, Office of Student and Economic Data Analysis. (2005). External Performance: Logic Models of the Impact of MOREnet. http://oseda.missouri.edu/educational_reports/final%20epm%20report.pdf

W.K. Kellogg Foundation. *Logic Model Development Guide*. Battle Creek: MI. October 2000. The Logic Model Development Guide provides information on logic models, how to develop program logic models, how to use logic models for assessment, and other resources and planning materials. It is available online at http://www.wkkf.org/Pubs/Tools/Evaluation/Pub3669.pdf.
Additionally, the Foundation provides free logic model planning resources at http://www.wkkf.org.

Oregon State University. *Division of Students affairs Assessment Handbook, - Assessment- a thinking person's Process, September 2005.* http://oregonstate.edu/studentaffairs/assessment/index.html