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**GUIDE FOR DEVELOPING AND IMPLEMENTING A
PROGRAM STUDENT LEARNING OUTCOMES ASSESSMENT PLAN**

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For Northern Essex Community College

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PART 1. INTRODUCTION

The following excerpt is intended to provide a “big picture” introduction to the process of developing and implementing a program student learning outcomes assessment plan, as well as to provide a general description of the major steps in that process.

Assessment is an ongoing process aimed at understanding and improving student learning. It involves making our expectations explicit and public; setting appropriate criteria and high standards for learning quality; systematically gathering, analyzing, and interpreting evidence to determine how well performance matches those expectations and standards; and using the resulting information to document, explain, and improve performance.

(From material distributed at a session entitled *Doing Assessment as if Learning Matters Most*, by Thomas A. Angelo, 2005 Assessment Institute in Indianapolis)

If we break this excerpt down, we get a fairly good picture of the steps involved in developing and implementing a program outcomes assessment plan. That is:

- The phrase, “...making our expectations explicit and public...”, suggests **the development of program educational objectives** – the knowledge, skills, and abilities that the faculty via the program curriculum expect to assist students in developing - **and student learning outcomes** – what the faculty expect successful students will learn with respect to those objectives.
- “...setting ... criteria and ... standards...” suggests the need to **specify the critical elements of each of the learning outcomes and to define what constitutes satisfactory versus unsatisfactory student performance with respect to these elements**. These specifications and definitions are captured in such tools as rubrics, scoring guides, and performance standards.
- Next, student **artifacts are gathered, analyzed** using appropriate tools, with the **results then interpreted** with respect to the learning outcome or outcomes being investigated.
- Finally, this **information is used to “...document, explain, and improve performance.”** Because assessment involves a consideration of both **what** and **how** students learn, these improvement efforts can involve, for example, changes in pedagogy, materials used, course content, and curriculum.

Next steps involve **determining the impact of program improvement efforts**. In this way, assessment becomes an “...**ongoing process...**” in the program, “...**aimed at understanding and improving student learning.**”

PART 2. DEVELOPING A PROGRAM OUTCOMES ASSESSMENT PLAN

A program outcomes assessment plan is a means of providing structure to the assessment of student learning in that program.

Major Components

The major components of this plan, which will be described in more detail in the following sections, include:

- A **program mission statement**, which aligns with the more general college mission statement, and which succinctly summarizes the purpose and activities of the program.
- **Program objectives**, which are the key general educational content areas that faculty have determined need to be addressed within the program's curriculum.
- **Student learning outcomes**, which flow from the program objectives and are statements concerning what a successful student will know or be able to do as a result of their experience with the program curriculum.
- A **detailed curriculum** with respect to the learning outcomes, specifying which courses provide the necessary learning experiences.
- A **curriculum map** which captures the above elements, thereby providing a succinct representation of the plan's major components.
- A preliminary **outcomes assessment schedule**, a first step in assessment implementation.

Benefits Associated with Developing an Assessment Plan

Beyond providing structure to the program student learning outcomes assessment process, the development of a program outcomes assessment plan also:

- **Provides an opportunity for faculty, staff, and administrators to systematically review the curriculum** for a program to ensure that the curriculum as designed is coherent, fulfilling institutional and program objectives, and supportive of quality learning outcomes.
- **Helps insure that the program in its objectives, learning outcomes, and curriculum is responsive to the** demands of the relevant labor market, and the requirements and expectations of post-community college higher education institutions.
- **Creates documentation to include in and/or to support program review and other self-study activities** associated with program approval, certification, or accreditation.

Preparatory Steps Involved in Developing a Program Outcomes Assessment Plan

Step 1: Assemble a team of individuals such that both an internal as well as an external perspective is provided. Include representatives who are knowledgeable about the program with respect to its current functioning, its fit within the campus, its link to the employment sector, and/or its relationship to four-year colleges to which students transfer. For example, include:

- Full and part-time faculty from within the program
- Full and part-time faculty from other programs, departments, or divisions
- Administrators and professional staff
- Community professionals/employers
- Members of the program's Advisory Committee
- Representatives from area four-year colleges
- Program students or alumni

The purpose of this inclusion is to help insure the **quality** of the final plan – that it is well-informed, because relevant information is sometimes dispersed across individuals from within and outside of the program, and **acceptance**, which is often directly related to the amount of influence people perceive they have over the plan process.

Step 2: Consider the relevant contexts and constituencies

A. Community

1. Employment sector

Obtain and review available information about the labor market relevant to your program.

What are the current and projected employment needs for your program's graduates? What knowledge, skills, and abilities do students need to develop to be successful in the associated occupation/career? Is the preparation your program provides adequate and current?

2. Enrolling students

Obtain and review information about the student population that is enrolling in your program. NECC's programs can be viewed as a bridge between secondary education or its equivalent, and employment or transfer to a four-year college. The needs and interests of students enrolling in NECC's programs undoubtedly change over time, in response to a variety of factors, including economic patterns, demographic shifts, changes in labor market demands, degree of secondary education preparedness, and extent of aspirations for further education. Is there a change in the demand for the program? If so, to what do you attribute this change? Have

students' needs or interests changed over time? For example, is occupational preparation more of a focus than transfer or vice versa? **How does their secondary school preparation fit the curricular demands of your program?** Is curricular modification suggested?

3. Post community college higher education institutions

Consider information about institutions to which students from your program transfer as well as the success rate of these student transfers. To ensure student success after transfer, courses need to effectively map onto comparable courses at the four-year institutions. **Does the program's curriculum adequately prepare students for success after transfer?** Does the program's curriculum align with the requirements and expectations of the receiving institution?

B. Institutional

To ensure that the program's purposes and activities are aligned with those of the institution, review NECC's **Mission Statement**:

NECC Mission

At NECC, our mission is to educate and inspire our students to succeed. We provide a welcoming environment focused on teaching and learning—strongly committed to unlocking the potential within each student and empowering our diverse community of learners to meet their individual goals. We are a community college dedicated to creating vibrant and innovative opportunities that encourage excellence and enhance the cultural and economic life of our region.

Other institutional information - Strategic Plan, Strategic Goals, Vision Statement, and Core Values – can be found at: <http://facstaff.necc.mass.edu/vision-and-planning-initiatives/strategic-planning/>.

Step 3: Review available information about your program. This may include **catalog information, descriptions in brochures, and summaries in program approval or accreditation reports.** This type of background review can be helpful when you start to think about your program's mission statement, objectives, and outcomes. On the other hand, you may conclude that they do not fully capture your program in its current form, and that some of the materials may need revision.

Step 4: Get information on how mission statements, educational objectives, and learning outcomes are defined and articulated in similar contexts. Examples of information sources are programs at other colleges, accreditation or licensing agencies, professional organizations, publications (including NECC publications), and Web searches.

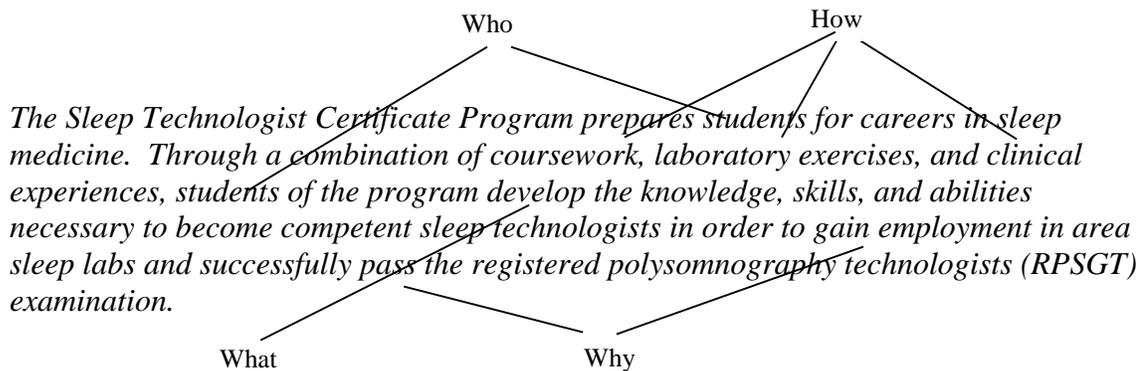
Developing the Major Plan Components

Mission Statement

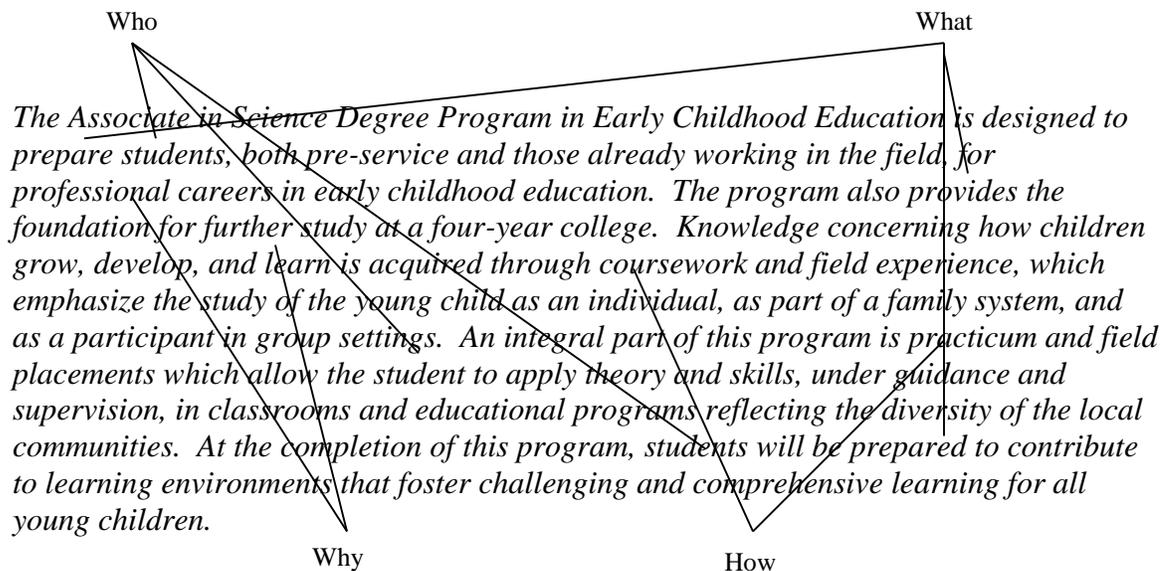
Mission statements are brief statements that provide a context for the program objectives, and curriculum. They answer questions such as **what (is being done)**, for **whom (the participants, stakeholders)**, **how (the methods or services)**, and **why (purpose)**.

Reviewing mission statements of other NECC programs and of academic programs at other institutions may be helpful, while continuing to be mindful of the need to align with NECC's mission. Examples of NECC program mission statements can be found in each of the curriculum maps displayed at <http://facstaff.necc.mass.edu/faculty-resources/program-review-outcomes-assessment/program-level/program-outcomes-and-curriculum-maps/>.

Following are two annotated examples:



(From the curriculum map submitted in February 2012 by the Sleep Technologist Certificate Program at Northern Essex Community College)



(From the curriculum map submitted in February 2012 by the Early Childhood Education Program at Northern Essex Community College)

Program Objectives

Program objectives are very general statements focused on what faculty expect or intend students to learn or develop as a result of going through the program.

Three areas or domains of learning often considered in the development of objectives are:

- Cognitive (what we expect them to know),
- Psychomotor (what we expect them to be able to do), and
- Affective (what attitudes or feelings we expect them to develop).

One way to approach this task is to review the program courses and course descriptions, particularly course objectives, to possibly identify some overarching program objectives. **This is going from the specific to the general.** For example, some courses may share similar objectives, at least in part. This may work into more general program objectives statements.

Another approach is to go from the more general to the specific. After developing a mission statement, faculty then identify what will be from the faculty side the major program objectives.

Compare the objectives with the mission statement. (This is the ongoing feedback loop which is part of this process). Are your program objectives consistent with and reflective of your mission statement? Similarly, is your mission statement reflective of the program's objectives?

Many examples of program objectives and learning outcomes are presented following the discussion of learning outcomes in the next section. Examples are also provided in the curriculum maps available on the NECC website and previously referenced.

Learning Outcomes

Learning outcomes flow from and are more specific than objectives. Objectives focus on what will be taught or provided to students. Learning outcomes focus on what the students will acquire as a result of that instruction.

Learning outcomes specify, for each objective, what we expect the students will know or be able to do with respect to that objective after successfully completing the program. For each program objective, think in terms of developing two or more learning outcomes, with **each outcome representing an element of the objective.**

For example, faculty in NECC's Accounting Program determined that there were **two elements included in the overall objective related to basic accounting skills.** These two concerned:

- the ability to **analyze and record journal entries**, and
- to **present data in published formats** (see table below).

Outcomes are the bridge between the program’s objectives and the assessment methods used to evaluate the extent to which the objectives are realized. Because they will be the focus of assessment efforts, **learning outcomes must be worded in such a way that they are measurable**, that is, that they suggest **the type of evidence that could be collected and analyzed** to determine to what extent students have achieved the outcome. A common recommendation to achieve that goal is to **begin each outcomes statement with an action verb.**

Examples of program objectives and learning outcomes

Some examples of objectives and associated learning outcomes are presented in the following tables, with the action verbs indicated in bold.

Objectives	Associated Learning Outcomes
The objectives of the Accounting Program include to assist students in the development of:	The graduating student will be able to:
4. Basic accounting skills to insure that students have a solid foundation in accounting.	1. Analyze and record journal entries.
	2. Present data in published formats, for example, income statements and balance sheets.

(From the Outcomes and Curriculum Map developed in March 2012 by the NECC Accounting Program)

Objectives	Associated Learning Outcomes
The objectives of the Criminal Justice Program include to assist students in the development of:	The graduating student will be able to:
5. A knowledge of evidence, courtroom procedure, and appellate issues.	1. Identify the actors in a criminal trial and describe their respective roles.
	2. Describe and explain the stages of the criminal trial and the issues for each stage.
	3. Describe the rules of evidence and analyze evidentiary problems.
	4. Describe the appellate process in both the state and federal systems.

(From the Outcomes and Curriculum Map developed in February 2010 by the NECC Criminal Justice Program)

Objectives	Associated Learning Outcomes
The objectives of the Dental Assisting Program include to assist students in the development of:	The graduating student will be able to:
6. The necessary social skills, cultural awareness and professional attributes to practice successfully within the dental profession.	18. Effectively communicate with patients, family members and other members of the healthcare team.
	19. Exhibit professional conduct including reliability, responsibility, honesty and ethical behavior.
	20. Utilize various resources to earn continuing education credits in order to maintain credentials and continue their lifelong learning.

(From the Outcomes and Curriculum Map developed in October 2012 by the NECC Dental Assisting Program)

Outcomes and Curriculum Map

A **curriculum map** includes the program mission statement, objectives, and learning outcomes, and details the curriculum in such a way as to specify where students will have opportunities to

develop the knowledge, skills, and abilities identified in the learning outcomes. **Many NECC examples are available on the NECC website at: <http://facstaff.necc.mass.edu/faculty-resources/program-review-outcomes-assessment/program-level/program-outcomes-and-curriculum-maps/>. A section of one of these is provided below:**

Outcomes and Curriculum Map: General Studies: Dance Option

PROGRAM MISSION STATEMENT: *The mission of the General Studies: Dance Option program is to promote dance as a medium of communication and expression. It is also our mission to promote dance education, and to train students to be effective teachers in their communities by educating them on the importance of proper body mechanics, training, and injury prevention. Successful students develop an artistic sensibility, interpersonal skills, they learn cooperation and teamwork, along with a disciplined work ethic, skills necessary in most endeavors.*

OBJECTIVES	ASSOCIATED LEARNING OUTCOMES	PROGRAM CURRICULUM: SPECIFIC COURSES AND RELATIONSHIP TO OUTCOME																
		Requirements											Electives					
		ANT101 Cultural Anthropology	BUS102 Introduction to Entrepreneurship	DAN101 Dance Composition	DAN121 Ballet	DAN131 Jazz Dance	DAN141 Modern Dance I	DAN147 World Dance I	DAN201 Dance Production	DAN203 Dance Pedagogy	ENG101 English Comp 1	ENG102 English Comp II	MUS101 Introduction to Music	Program Electives (9)	History & Government Elective (3)	Literature Elective (3)	Math Elective (3)	Science Electives (8)
3	Knowledge of Scientific Foundations and Kinesiology and how it applies to dancers/dance teachers.			x	x	x	x	x	x									
	1 Demonstrate through projects and testing, the knowledge of proper body mechanics.			x	x	x	x	x	x									
	2 Apply and demonstrate anatomical knowledge of the human body, through choreography, projects and exams.				x	x	x			x								
	3 Discuss the importance of proper training and its effects on injury prevention.			x	x	x	x	x	x	x								

The first column of the map is for program objectives and the next for learning outcome statements. One objective is typically broken down into two or more outcomes statements. The following columns are for all of the courses that make up the program, including electives.

Once you have the grid, for each course, check which outcomes are being addressed. You can simply use an “X”, as above, or if you can be more specific, you can use the indicators, I (Introduce), R (Reinforce), and E (Emphasize).

Through this exercise, you can check:

- Whether each of the outcomes is being adequately addressed in the curriculum,
- Whether you have courses that do not appear to address any of the outcomes, and
- The appropriateness of the course sequencing in your program.

If you find that there is a course which doesn’t seem to fit any of your outcomes, you may need to rethink the outcome statements as you may have overlooked an important component of your program. The question is, why is this course included?

A curriculum map allows you to check as to whether you have a coherent curriculum which aligns with the outcomes and objectives. If so, you are ready to develop a preliminary assessment schedule.

Institutional learning outcomes

NECC has developed six institutional skills or learning outcomes for degree programs - **Global Awareness, Information Literacy, Public Presentation, Quantitative Reasoning, Science & Technology, and Written Communication** – with the important components of each outcome captured in the criteria included in rubrics created for assessment purposes. (See below for a full discussion of outcomes components and rubrics.) Because the learning with respect to these outcomes occurs within the context of degree program curricula, **these outcomes should be included in program outcomes and curriculum maps, along with indicators concerning the course or courses supporting the learning. These courses may be those designated as intensive with respect to particular institutional outcomes.**

Outcomes Assessment Schedule and Strategy for Plan Implementation

An outcomes assessment schedule is a brief plan detailing the specific outcomes that will be assessed each semester going forward. To ensure that the process is systematic, a schedule much like the following could be developed. In this example, the program developed twelve learning outcomes (LO), and planned to assess them over a period of three academic years.

Program Objectives	Program Learning Outcomes	2015-16		2016-17		2017-18		2018-19		2019-20		2020-21	
		F	S	F	S	F	S	F	S	F	S	F	S
Objective 1	LO1		X						X				
	LO2		X						X				
Objective 2	LO3					X							X
	LO4					X							X
	LO5		X						X				
Objective 3	LO6					X							X
	LO7						X						X
Objective 4	LO8	X						X					
	LO9	X						X					
Objective 5	LO10			X	X					X	X		
	LO11			X	X					X	X		
	LO12			X	X					X	X		

As this schedule is developed, consider that whenever possible, **it is desirable to assess multiple outcomes with a single student artifact.** For example, using a single written assignment, it may be possible to assess writing skills, critical thinking skills, and mastery of a particular program content area.

In the above schedule:

- Faculty intend to assess learning outcomes 10, 11, and 12 using a common student artifact, and with another common artifact, learning outcomes 1 and 2.
- Learning outcome 6 is set for the fall term, while outcomes 1 and 2 are set for the spring term, because the **courses where artifacts for those outcomes will be collected are typically scheduled for those terms.**
- Learning outcomes 10, 11, and 12 are scheduled for **two terms to ensure that a sufficient number of student artifacts is collected.**

Assessment of all of the outcomes should be accomplished within an approximate three year time frame. Note that the above schedule calls for the re-assessment of each learning outcome during a second three year period. Reasons for this re-assessment include the need to determine the impact of actions made towards program improvement based on evidence collected, or to determine if positive results have been maintained. A three year cycle is recommended because a short time frame allows for a quicker evaluation of the impact of actions taken on student learning.

Feedback to the general plan following each year's cycle is expected, and may lead to a revised general plan. This underscores the **ongoing nature of the outcomes assessment process.**

PART 3. IMPLEMENTING A PROGRAM OUTCOMES ASSESSMENT PLAN

Implementing a program learning outcomes assessment plan involves:

- **Collecting, analyzing, and evaluating** outcomes-related evidence, and
- **Developing action plans** and making program improvements based on that evidence.

Because implementation involves a number of steps and decisions, to ensure a smooth process that yields quality data, program faculty should meet in the semester prior to data collection to plan this implementation.

Identifying Evidence Collection “Sites”

The guiding question in “site” selection is: **With respect to the outcomes of interest, from which site or sites can we collect artifacts that are likely to provide evidence from program majors of the highest level of curriculum supported learning?**

In a general sense, program learning outcomes represent the knowledge, skills and abilities that successful students have acquired after receiving the full curricular treatment. An ideal setting for the assessment of program learning outcomes, then, may be a capstone course because it is the highest level course in a program, is an integrative experience possibly focusing on all outcomes, and includes students who are majors about to graduate. However, these type courses are not typically found in community colleges.

Community colleges do, however, have some **highly sequenced programs involving cohorts of students**, for example, in the areas of health and education. In these programs, **some higher level courses may provide the optimal points for evidence collection** concerning certain outcomes in that the students enrolled have had significant experience with the curriculum and are nearing graduation. These courses may include practicums, clinical placements, and externships.

For other types of programs, evidence is typically collected from courses which provide the highest level program instructional experience that supports students achieving success with respect to the outcomes being investigated. An examination of the program curriculum map should provide guidance in identifying these courses, particularly if the I, R, E coding was used.

An approach which can be used by programs, whether or not highly sequenced, would be to focus on **“content capstone” courses, meaning that the courses are at the highest level in a sequence of courses providing the learning experience related to particular outcomes.** For example, a 102 course in a 101 – 102 sequence may be a content capstone if the two courses are focused on the same outcomes, and 102 is the higher level course. Many students in these content capstone courses are also likely to be program majors.

For programs without content capstones, or where certain outcomes are not optimally addressed within those capstones, the task for faculty is to **identify either courses where the outcomes are most strongly emphasized within the curriculum, or other sites for evidence collection.**

Courses included in program curricula which are designated as intensive in NECC’s institutional learning outcomes, or core skills, may be sites to consider, particularly because these core skills are also part of a program’s learning outcomes and therefore need to be assessed. These type courses would be especially useful if they enroll a large number of program majors.

Sites are not limited to courses. A site can also be any area where student learning with respect to the outcomes of interest is emphasized and/or is already being measured or exhibited. For example, many health programs focus on formal comprehensive examinations provided by external examiners. These type examinations are taken by all students nearing graduation and results are reported back to the college. In those cases, examination items can be grouped by learning outcomes, and students’ performance analyzed. As another example, in the NECC theater program, many program majors were involved in a production where they were expected to demonstrate learning acquired within program courses. Evidence of this learning was obtained through observing and rating the students’ performance.

Evidence to Collect/ Method to Use

Once sites are identified, the next step is to determine **what type of evidence to collect that would yield information concerning students’ level of achievement with respect to the learning outcomes in question.** The evidence needed will suggest the type of assessment method to use.

For example, if an outcome refers to the ability of students to compare and contrast various political theories, then the assessment method might be a paper with that specific task. If an outcome relates to skills using particular software, then the assessment method might call for students to design, for example, a spreadsheet. Methods that have been used at NECC include:

Assessment method	Program using
Topic papers	Business Management/ Business Transfer
Research papers	Business Management: Healthcare Practice Management Option
In class objective tests	Human Services
National standardized test results	Nursing (ADN)
Externship evaluations	Laboratory Science
Practicum evaluations	Dental Assisting
Behavioral observations	General Studies: Music Option
Power Point presentations	Liberal Arts: Journalism/ Communication Option
Student journals	Early Childhood Education
Employer surveys	Radiologic Technology

Assessment methods are commonly categorized as direct versus indirect. To put it simply, direct methods focus on actual products, while indirect methods involve perceptions.

In *Assessing for Learning* (2004), Maki provides the following definitions:

Direct methods prompt students to represent or demonstrate their learning or produce work so that observers can assess how well students' texts or responses fit institution- or program-level expectations. Performances, creations, results of research or exploration, interactions within group problem solving, or responses to questions or prompts represent examples of direct methods. Observers draw inferences based on what students produce, how they perform, or what they select in response to a universe of questions or stimuli designed to assess dimensions of their learning.

Indirect methods capture students' perceptions of their learning and the educational environment that supports that learning, such as access to and the quality of services, programs, or educational offerings that support their learning. Student satisfaction, alumni, and employer surveys are examples of indirect methods that document perceptions, reactions, or responses.

Further:

Results of indirect methods may well complement the results of direct methods. A student satisfaction survey that reveals patterns of dissatisfaction with an academic support service, for example, may help to explain why certain cohorts of students are less able to achieve specific institution-level expectations. By themselves, results of indirect methods cannot substitute for the evidence of learning that direct methods provide. They can, however, contribute to interpreting the results of direct methods...

For accreditation, NEASC requires that the college report on learning outcomes assessment work, including by way of a form which details for each degree program the evidence used to evaluate students' learning outcomes achievement, and changes made as a result of this use. NECC's fall 2014 version of this form is a rich source of information concerning the various methods used by NECC degree programs, and can be found at:

<http://facstaff.necc.mass.edu/wp-content/uploads/2015/06/NECC-NEASC-Student-Achievement-and-Success-E-Series-Forms.pdf>

Also, NECC faculty summary reports on program outcomes assessment work - including information on outcomes assessed, methods used, findings, and action plans - can be found at:

<http://facstaff.necc.mass.edu/faculty-resources/program-review-outcomes-assessment/program-level/>

Why Grades are Not Evidence

If the sites selected are courses, or sections of courses, the question arises as to whether simply collecting students' grades would suffice as evidence of outcomes attainment. There are at least two reasons why grades cannot serve this purpose.

- First, because the factors considered by instructors in assigning grades often vary by course section, performance with respect to a particular program outcome may be only one component of a course grade, or may not even be reflected. Even if a program outcome was considered in assigning the final grades, the way in which it was assessed and the weight it was given in the grade would undoubtedly also vary by instructor. It would be difficult, then, to compare grades across sections.
- Second, and most importantly, **grades provide no information about how students performed with respect to the individual components of an outcome.** Without this information, it would be impossible to identify areas for program improvement efforts.

However, while the grades themselves are not useful in program assessment, from a motivation perspective, it is preferable for students to have their performance on work that will be submitted for program assessment reflected in their course grades.

Method: In Place or to be Developed

The method of assessment that best addresses or captures students' competency with respect to the specific learning outcome being investigated may already be in place in the identified site or may need to be developed. In either case, **the adequacy of the "assignment" provided to students with respect to how well it captures the major components of the outcome will need to be examined.**

Whether methods are in place or need to be developed, **faculty whose courses will provide sites for data collection need to be involved in the process** as they may be asked to modify assignments or introduce new assessment methods. Planning implementation a semester in advance is important in this regard. In cases where instructors are not in place until just before the beginning of a term, it is helpful to have materials available for ready inclusion in syllabi.

Assignment Adequacy

The fundamental question that drives outcomes assessment is: *Are the students learning what the program is designed for them to learn?* In order to make judgments in this regard, you need to examine evidence of this learning with respect to the outcomes being investigated. **Assignment adequacy refers to the extent to which the assignments provided to students will prompt them to produce this evidence.** Absent this prompt, students may not provide evidence concerning specific aspects of their learning, leading to possible false conclusions that the learning outcomes are not being achieved. In this context, **assignment refers to any evidence-gathering prompt, including, for example, an outline for or a description of a**

required written report, a question on an objective examination, or a listing of behaviors required to be exhibited at a practicum site.

Questions related to assignment adequacy include: **Does the assignment clearly address all of the important components of the learning outcome? Does the assignment clearly require that students produce evidence of learning with respect to those components?**

One approach to exploring assignment adequacy is to **first identify the important components of each of the outcomes in question.** For example, faculty may decide that a learning outcome related to writing skills includes components related to purpose, organization, and mechanics. These components then become the criteria on which students' artifacts will be evaluated, and conclusions about their learning will be based. The criteria can be used to create a scoring rubric, which would include standards for evaluation. **Ideally, these components or criteria will then be explicitly referenced in the writing assignment which calls for students to exhibit their abilities in those areas, thereby:**

- **Serving as a demand for students to provide the needed evidence, and**
- **Providing them with information about assignment expectations.**

The rubric can also be distributed to students as a way to support the expectations detailed in the assignment.

One test of assignment adequacy particularly in cases where rubrics are being used concerns the **extent to which the demands or instructions given in the assignment provided to students align with or reflect the areas on which their work will be evaluated, in other words, with the rubric criteria.** Because rubric - assignment alignment is important for a quality prompt, a careful review of the assignment vis a vis the rubric, preferably with a colleague, is recommended.

More information on rubrics will be presented in later sections, including how to create them and then use them when evaluating student artifacts.

The same need to identify important components of an outcome also exists when such methods as surveys, external evaluation forms, and objective examinations are used. Are the outcome's main components fully represented in the items presented? For example, if the goal is to collect evidence related to students' learning of a particular content area, then the items on an objective test taken together must adequately represent that content. Similarly, if the evidence sought relates to a quality that will be rated, such as attentiveness to patients, then items on the rating form must fully represent the component behaviors that constitute or define that quality. One way to evaluate the adequacy of objective examinations or rating forms is to ask: *If students receive high scores on the items, how comfortable are you concluding that they have achieved to a high level the learning described in the outcome?* For methods of this type, the items are the assignment, and provide the demand for exhibiting learning.

Just as sharing rubrics with students can support the expectations outlined in assignments which will be evaluated with those rubrics, for such methods as objective tests, the same purpose of communicating expectations may be served by a general study guide. Sharing external evaluation forms with students can also prompt closer attention to the behaviors described in rating categories.

Development of Analysis Tools and Processes

After the assessment methods and corresponding assignments are in place, mechanisms to analyze the evidence need to be developed. These mechanisms could involve, for example, scoring guides or rubrics.

Scoring guides are often used for **objectively scored assessments**, so named because the characteristics of the response reside in the object. Evaluators can be expected to for the most part agree on the correctness or incorrectness of a response. For these types of assessments - for example a multiple choice test - a simple scoring key or guide is adequate to use as a basis to score a student's artifact.

Subjectively scored assessments are so named because factors which reside in the assessor may affect judgments of a response. Evaluations of certain types of assessments, for example, behavioral observations or essay responses, are considered to be subjective, because independent observers may not readily agree on what is being represented in the student's artifact due to such factors as perspectives and biases. For this reason, for these type assessments, it is important to develop rubrics and to train raters in their use.

Rubrics

As noted above, rubrics can be important tools for more precisely defining an outcome, and supporting expectations detailed in assignments. Further, if used to grade students in the assignment, rubrics can increase grade acceptance because students can better understand the basis for their grades.

Making a rubric

Rubrics consists of the identification of the criteria to be evaluated, and a specification of the standards to be applied when evaluating each of the criteria. Developing these types of guides is useful because it ensures that all relevant criteria or outcomes components are identified and standards explicated, which may be helpful in reducing subjectivity when evaluating student work. As discussed above, rubrics can also guide assignment development and can provide students with information concerning the instructor's expectations. This is why **rubrics to be used in program assessment need to be developed before the assessments are administered**. Similarly, developing scoring guides for objective type assessments, and having a colleague assist, can help identify imperfect items.

One way to measure the quality of a rubric concerns how well it covers the essential components of the outcome. In other words, if a student scores high on each of the criteria, how comfortable

are you concluding that the student has achieved to a high level the learning – whether knowledge, skill, or ability - described in the outcome?

Examples of rubrics created by NECC faculty for program assessment can be found at: <http://facstaff.necc.mass.edu/faculty-resources/program-review-outcomes-assessment/program-level/>. The main sources for the rubrics used for NECC’s institutional assessments were the VALUE rubrics created by the AAC&U, which can be found at: <http://www.aacu.org/value-rubrics>. The VALUE rubrics are used extensively across the country, and were used in projects in which NECC participated - the Massachusetts Vision Project and the Multi-State Collaborative to Advance Learning Outcomes Assessment. For summary reports on NECC’s institutional assessments, see: <http://facstaff.necc.mass.edu/faculty-resources/program-review-outcomes-assessment/institutional/>.

A rubric developed by NECC’s Accounting Program faculty for 2011 outcomes assessment demonstrates in many ways a highly recommended approach to this work. For one, multiple learning outcomes associated with multiple objectives were distilled to essential components, which were then used to create a single rubric, which is represented below:

Objectives and outcomes from the Accounting Program’s curriculum map represented in the rubric:

Objectives		Outcomes	
1	Critical thinking skills.	1	Research the existing information and data regarding the topic of inquiry.
		2	Evaluate the evidence and data relevant to the topic of inquiry.
		3	Apply logical, scientific, and/or quantitative reasoning to develop a thesis or hypothesis.
2	Writing competencies	1	Respond to an assignment in writing which answers the question and uses appropriate vocabulary.
		2	Produce clear and well-organized writing.
		3	Use standard American English in writing.
		4	Produce clear articulate writing to describe accounting theories.
3	Computer fluency	2	Use the Internet and the Web and evaluate its content.
7	Knowledge concerning the ethics of the accounting profession	1	Exhibit the ability to identify ethical issues related to performance of accounting tasks and to evaluate available choices.

Accounting Assignment - Essay Scoring Rubric

Student #: _____

Criteria	1- Unacceptable	2 – Minimally acceptable	3 – Proficient	4 – Advanced	Score
Form an assertion about a given issue	No assertion has been stated.	Assertion is vague.	A somewhat convincing assertion is made about a given topic or issue.	Compelling assertion is made about a given topic or issue.	Score:
Support assertion with own reasoning and evaluation of evidence	Assertion lacks total support, reflecting an elementary level of thought.	Topic is not supported well, reflecting an immature level of thought.	Topic is addressed clearly, reflecting a fairly mature level of thought.	Topic is addressed clearly, reflecting a mature level of thought.	Score:
Organize and connect major ideas logically	The writing lacks a beginning, a middle, and/or an ending.	Organization is not clear or effective.	Organization is clean, though lacking full clarity and coherence.	Organization is so clear that the reader knows at all times what the purpose is and how the writer intends to accomplish it.	Score:
Express ideas in the clearest form of standard English	Grammar, punctuation, spelling, and usage are severely deficient.	Isolated errors in grammar, punctuation, spelling, and/or usage reduce clarity and credibility.	Free of major errors in grammar, punctuation, spelling, and usage.	Free of errors in grammar, punctuation, spelling, and usage. Collegiate level vocabulary is used throughout paper.	Score:
Use of research and documentation of sources (if applicable)	Needed research is absent or material is used but not cited.	Adequate research is included and sources are cited, but there are errors in formatting several of the citations.	Research is incorporated well and sources are cited adequately with one or two minor errors.	Research is thorough and incorporated well. All sources are cited accurately.	Score:
Ability to identify ethical issues	Did not identify issues or choices.	Identified issues; unable to evaluate choices.	Identified issues; insufficient exploration of choices.	Identified issues and identified all available choices.	Score:

Other ways in which this approach to assessment can serve as a model are that:

- Outcomes assessed include institutional (e.g. writing) as well as program specific (e.g. accounting ethics).
- Student artifacts were collected in both the fall and spring semesters to increase sample size.
- Artifacts were collected from a content capstone course, namely Accounting 102.
- Using a single artifact, multiple learning outcomes were assessed.

- Students were identified by a number (Student #), indicating that their names had been removed from the artifacts before rating (see below).
- Products were rated by two professors (see below).
- Performance criteria (see below) were established as follows: *The program will be considered successful in achieving this learning outcome if 80% of the students either received a “4-Advanced” or “3-Proficient” in each area category.*

For a complete summary of this particular assessment activity, see:

<http://facstaff.necc.mass.edu/wp-content/uploads/2010/02/Accounting-2011.pdf>

Analysis Guides: Decision Rules

What constitutes student success in outcomes achievement needs to be defined, based on the assessment tool being used. For example, if using a rubric with a 1 to 5 rating scale, with 5 representing the highest level of achievement, a program may decide that a criterion has been successfully addressed if 80% or more of the artifacts scored are rated at a level of 4 or above. Those criteria not met in this way become the subject of discussion for possible program improvement efforts.

For objective tests, where the items represent components of the learning outcomes, a rule may be that each of the items in each component need to be answered correctly by 80% or more of the students in order for the component (criterion) to be considered successfully addressed. Components not meeting this standard are reviewed for possible program work.

Performance standards or decision rules must be developed before the assessments are scored. Examples of the development and application of decision rules in assessment work can be found in many of the faculty summary reports on program outcomes assessment work at: <http://facstaff.necc.mass.edu/faculty-resources/program-review-outcomes-assessment/program-level/>

Some types of assessments are useful for strictly informational purposes. Surveys and focus groups, for example, may provide information that will be useful for program improvement without specifying in advance how many respondents must name something in order for it to be acted upon.

Collection and Preparation of Artifacts

Data collection refers to the gathering of artifacts from the designated site for later analysis and evaluation. In some cases, for example, if the artifacts are student essays, examinations, or evaluations produced in a certain course, this gathering is a relatively straightforward process. A procedure for collecting these artifacts, however, needs to be put in place.

In program assessment, **ideally, students whose artifacts are represented in the data collected are program majors who have received the full curricular treatment**, in other words, who are about to graduate. These students define the “ideal” population for artifact collection. In programs that are highly sequenced with a cohort structure, the population is likely represented in those highest level sites from which artifacts are collected. These sites include external examinations, practicums, internships, and any end-of-program integrative experience courses. Sites described as “content capstone” courses in these programs also likely include a close approximation to the population, provided that there is little or no program attrition.

As already discussed, **the reality at NECC and community colleges in general is that many programs will not be able to have this precise a focus**. Programs that are not highly sequenced and/or that lack a cohort structure will find it at best difficult to identify sites for each learning outcome that include the target population for purposes of artifact collection. In any one semester, the students making up this population are likely to be scattered across a number of courses in the curriculum. The exception would be if each of these different courses has been identified as a site for assessment of a particular outcome. Even in the case of “content capstone” courses, not all of the program majors nearing graduation will be enrolled in the course in the same semester. We suggest that program faculty consult with the Assessment Committee in making decisions about where and when to collect artifacts.

Drawing conclusions about the achievement of learning outcomes by students who have the full curricular treatment requires, ideally, evaluating artifacts from that population. Another approach is to secure artifacts from a representative sample of this population. That is, although artifacts would not be collected from all students in the population, they would be collected from some students in the population in a way that they adequately represent the larger group. In the strictest sense, this would mean that characteristics that may affect the achievement of learning outcomes are represented in the sample in the same proportion as they occur in the population. Exactly what these characteristics are, however, is at best difficult to determine. Recent mentions of representativeness in connection with assessment efforts tend to refer to demographic characteristics, for example, ethnicity, gender, and age.

Because artifact collection is specific to a site, except in the case of highly sequenced programs with cohort structures, the group from whom artifacts are collected is not likely to either constitute the population or be representative of it. The evidence provided by these collected artifacts, nevertheless, is a rich source of information concerning areas of strength and weakness in students’ learning outcomes attainment.

Overall, it is important not to become too concerned with issues concerning the population and a representative sample. The ideal can be kept in mind, but outcomes assessment work does not require that the ideal be reached. **What is required are good faith efforts to develop and implement an effective process, working with the resources available.** At the center of this process is collecting, analyzing, and evaluating student artifacts, and then using this information for discussion and program improvement efforts, activities in which all programs can productively engage.

The process of sampling may come into play in certain situations. For example, if the number of artifacts requiring scoring collected from program majors is large, and the program lacks the resources to score all of these artifacts, then **a sample representative of these artifacts** – as opposed to the population - could be selected for review. Because it would be difficult to detail the relevant student characteristics represented in the artifacts collected, a random sampling approach is recommended.

Questions have come up concerning the number of artifacts that need to be collected before a meaningful evaluation can be done. One guideline is that 10 or more is an absolute minimum. To increase the number, collection can go on over more than one term, an approach adopted in the assessment schedule described in Part 2, and used by the NECC Accounting Program in their rubric-based assessment described above.

Preparing Collected Artifacts for Analysis

While artifacts may be graded by the instructor(s) for input to the students' course grades, for program assessment purposes, copies would be obtained before the instructor has made any markings. Once collected as part of program assessment, individual student and instructor names associated with these artifacts are no longer relevant. Therefore, these names must be removed from any artifacts being analyzed. The interest is in work at the program level. The same procedure of removing names must be followed for all artifacts relating to individual students, for example, practicum supervisor evaluations or employer survey responses.

Analyzing Collected Artifacts

Analysis proceeds according to the plan developed before any data were collected, which may include the use of scoring keys or rubrics, as detailed in a previous section.

In this step, the artifacts collected are analyzed. In most cases, this consists of applying tools to enable the extraction of scores. In some cases, this has perhaps already been accomplished due to the nature of the method used. For example, assessment methods that use rating scales, such as external evaluation forms, are already "scored". For objective tests, a scoring guide would be used to evaluate the correctness of responses. If the analysis tool is a rubric, then a process to apply this rubric to the collected artifacts is needed.

Using a rubric

In this context, the quality of a rubric can be determined by how effective it is in reducing subjectivity. In other words, **how effective is it in leading raters to a common understanding?** Is it clear, with sufficient detail to facilitate artifact scoring? To support quality in this regard, a process for training raters is critical.

When using a rubric for the purpose of program assessment, to reduce subjectivity, it is desirable to have **artifacts evaluated by more than just one rater**. A recommended process involves training three raters who are experienced in the subject area reflected in the rubric, so that they develop a good understanding of the meaning of the criteria and the standards. Each of the raters

would as part of their preparation **independently score sample artifacts**, followed by discussion as to how they rated and why. **“Independent “means that each the rater would have no prior information about how the other raters scored the artifact.** This “norming” process would continue until raters achieve a satisfactory level of agreement as to their ratings on each criterion. Decision rules concerning what constitutes agreement versus disagreement need to be made in advance, and commonly are defined as not more than one rating point apart on a criterion.

The raters can then proceed to work independently on the collected artifacts, with each artifact evaluated by two raters. In cases of disagreement on any of the criteria, a third rater would independently evaluate the artifact. The final rating selected for each criterion would be that which is agreed upon by at least two raters. Having the agreement of two raters is a check on the reliability of the ratings being assigned. If there are a large number of artifacts being evaluated, having intermittent “norming” sessions is recommended, to correct for any rater “drift”.

The Special Cases of Oral Presentations or Behavioral Observations

When the learning outcome being assessed concerns students’ oral presentation skills or involves other behavioral demonstrations, and the assessment tool is a rubric, it is often difficult for instructors to include additional raters. The presence of a second or third party may affect students’ comfort level and subsequent performance. Sometimes, student performance can be videotaped for later analysis. But this too may influence student performance. If additional raters can be included, training should proceed as above, with “norming” sessions involving perhaps videotaped presentations found on the Internet. If the instructor will be the sole rater, if possible, it may be desirable to work beforehand with one or two faculty members, again rating videotaped performances, as a way to identify and resolve areas where interpretations differ.

Summarizing Analysis Results

Once the assessment artifacts have been analyzed, results can be organized or summarized in a number of ways. The goal of summarizing is to facilitate the interpretation of the evidence collected. **If the analysis tool was a rubric**, student ratings can simply be tabulated by criterion in such a way that allows for the application of the previously decided performance criteria. For example, **a table** created by faculty in the Early Childhood Education Program to summarize the fall 2013 ratings of students' child study reports is partially presented below.

PRACTICUM I: CHILD STUDY REPORTS EVALUATED USING GRADING RUBRIC

Total number of students evaluated = 32

CRITERIA	NUMBER RATED...						PERCENT RATED...		
	POOR		FAIR		DISTINGUISHED		2 OR HIGHER	3 OR HIGHER	4 OR HIGHER
	0	1	2	3	4	5			
Introduction	-	-	-	1	12	19	100	100	97
Physical Development	-	-	-	2	8	22	100	100	94
Intellectual Development	-	-	-	1	8	23	100	100	97
Creative Development	-	-	-	1	9	22	100	100	97
Social Development	-	-	-	-	9	23	100	100	100
Emotional development	-	-	-	3	7	22	100	100	91
Self-Concept	-	-	-	4	8	20	100	100	88
Concluding Paragraph	2	-	-	2	8	20	94	94	88
Grammar, Punctuation, Spelling	-	-	1	8	13	10	100	97	72
Use of Objective Language	-	-	2	-	7	23	100	94	94

Another example is the following table created by faculty in the Electronic Technology Program.

Design Project #1 - Design a BCD Invalid Code Detector

Fall 2008: Total number of students assessed = 33.

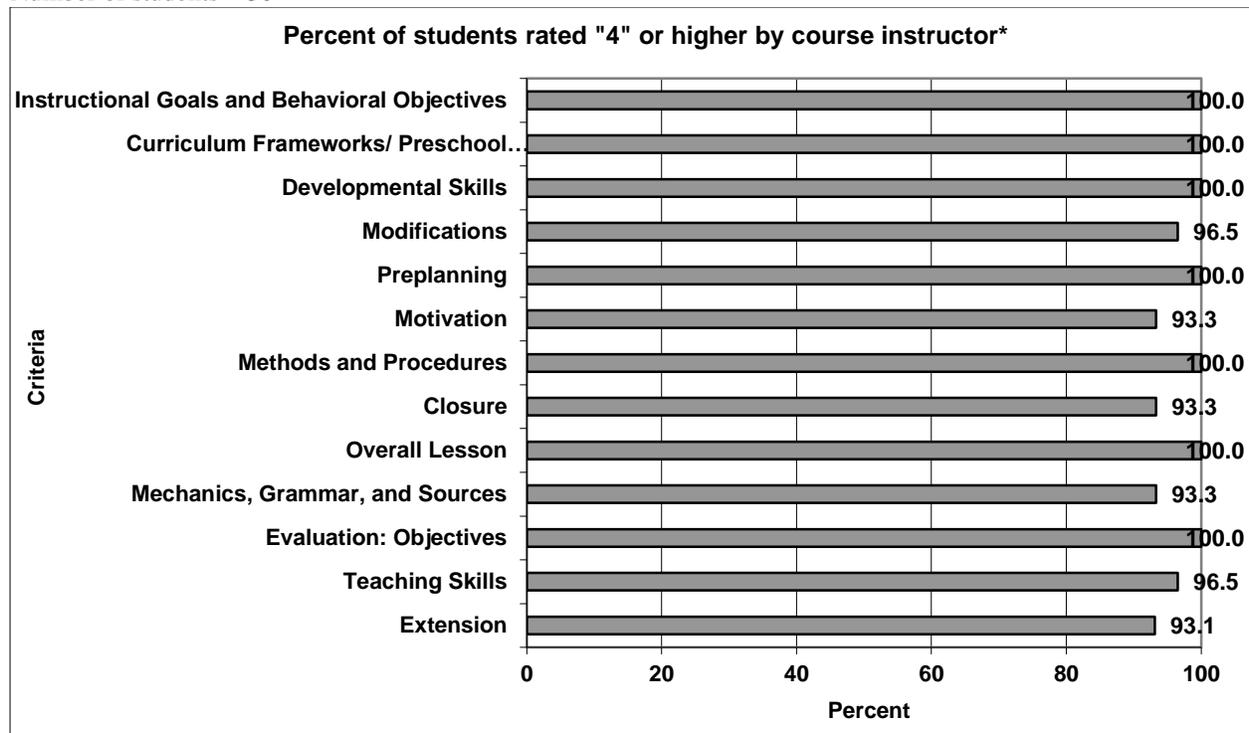
Criterion Description	Learning Outcomes	Project Points – Number of Students Receiving					Students rated at...			
		0	2	4	6	8	4 and above		6 and above	
		Unacceptable	Incomplete	Developing	Accomplished	Exemplary	N	%	N	%
1. Complete the truth table. Generate a Boolean expression from the truth table.	2.1 2.2 6.3	0	0	1	2	30	33	100	32	97
2. Draw the logic circuit for the simplified Boolean expression using AND -OR logic.	2.1 2.2 6.4	2	0	4	7	20	31	94	27	82
3. Draw the logic circuit for the simplified Boolean expression using NAND gates only.	2.1 2.2	0	0	4	3	26	33	100	29	88
4. Make the logic circuit that uses NAND gates only into a wiring diagram	2.2	0	0	4	3	26	33	100	29	88
5. Construct the NAND gate only circuit and test the operation of the circuit by filling in a truth table with the results.	1.1 2.3 3.4	0	0	1	0	32	33	100	32	97
6. Draw a logic circuit using an 8-input Multiplexer/Data Selector to implement the Invalid Code Detector truth table. Use the truth table “partition technique”.	2.1 2.2 6.3 6.4	2	0	4	3	24	31	94	27	82
7. Construct the Multiplexer/Data Selector circuit and test the operation of the circuit by filling in a truth table with the results.	1.1 2.3 3.4	2	0	1	0	30	31	94	30	91
8. Submit a report with the title BCD Invalid Code Detector , your name, the date, a paragraph describing what the BCD Invalid Code Detector does, and the neatly drawn items from steps 1 through 8 which support your design.	7.1	2	1	7	11	12	30	91	23	70

In both of the above cases, the organization of the analyzed artifacts facilitates the identification of areas that may need attention.

Another mode used to summarize rubric based data is a **chart**, an example of which is presented below:

**EARLY CHILDHOOD EDUCATION PROGRAM ASSESSMENT RESULTS - SPRING 2008
ASSESSMENTS
LESSON PLANS- COURSE INSTRUCTOR RATINGS**

Number of students = 30



* On a six point rating scale where 0-1 = 'Not Proficient', 2-3 = 'Developing Proficiency', and 4-5 = 'Proficient'.

The same approach can be used to organize information about student learning recorded on rating forms, and for responses to objective test responses.

Some programs have adopted a **qualitative approach to summarizing data** collected to serve as evidence of outcomes attainment. For example, the spring 2013 assessment conducted by the General Studies: Dance Option Program included a focus on their Objective 1: Communication Skills, with its associated Learning Outcome 2 - the ability of students to: *Produce clear writing pieces that are well-organized and follow the guidelines that are expected in their English and writing courses.* The site chosen for this assessment was DAN 101 – Dance Composition. Following are excerpts from the program’s assessment report:

Assessment Tool: Creative Assignment Journals

In addition to creating these dance phrases, students were asked to journal their findings at the end of each class. These journals consisted of a series of questions that helped in aiding in the reflection process of what they created. An in-class journal was completed at every course meeting.

(LO 2 Result): ...The in class journals ... served as good writing pieces for the students. Students were instructed to write formally and with as much detail and support as possible. I found with my assessment that some students were able to write their thoughts down better with more detail than others. Some of the students would write one sentence answers, while others were able to offer more examples. I also found that having them hand write their assignment allowed for more spelling and grammatical errors than if they were able to do it on a computer.

Interpreting the Results: Developing Action Plans

The data obtained through an analysis of student artifacts and then subsequently organized requires interpretation and evaluation. This has to do with the meaning that will be given to the results. Evaluation has been defined as the:

...process of reviewing the results of data collection and analysis and making a determination of the value of findings and actions to be taken.

(From Program Assessment of Student Learning: Keep It Simple, distributed by G. Rogers, Ph.D., Associate Executive Director of Professional Services at ABET, Inc., at a June, 2006 assessment workshop.)

Absent any application or use, assessment is a meaningless activity that will get little in the way of quality attention from faculty. On the other hand, assessment results can become the basis for the development of action plans for the future with respect to the program and its functioning.

The evaluation of results is clearly facilitated by the summaries provided in the above tables, chart, and qualitative analysis. In each of the tables, areas for program improvement efforts are apparent. While the chart and qualitative analysis reveal program strength, still there are some areas that could be improved upon. Some programs, such as Dental Assisting, have shared assessment results with students, making them “partners” in improvement efforts!

Evaluations lead to action plans which are plans for the future focused on improving student learning. In this step, assessment results are shared and used in decision-making. It is probably desirable to “institutionalize” this step of the assessment process by having a **specific time and place set aside each term or year to discuss assessment results**. This type of arrangement makes assessment an ongoing part of the business of the program.

In addition to specifying a time and place, **it is also desirable to identify the group that will review and evaluate assessment results and develop an action plan.** Program faculty, because of their familiarity with the program, are in the best position to identify curricular or pedagogical factors as well as student factors such as preparedness and motivation that may affect student learning. External perspectives may also be useful. It is also desirable to identify **the audiences with whom the results and recommendations will be shared, for example program, department or division faculty, and advisory committee members.**

Communication with college administrators may influence resource requests and help obtain support for program changes.

Assessment results may not meet pre-set performance criteria, or in other ways may suggest a need for changes to improve student learning outcomes. At this point, it will be **necessary to discuss possible causes of the findings, and to pinpoint strategies or actions which would address these causes**. These are important discussions because the identification of incorrect causes leads to the application of remedies which may be at best ineffective and may even have a negative impact.

It is also possible to conclude that the assessment method used was inadequate for the purpose of determining whether the learning outcome was satisfactorily achieved. Action plans can include reference to plans regarding the development of other or additional assessment methods or tools.

The assessment results might also support that the program in general is working well and is quite effective with respect to achieving the desired learning outcomes. Factors associated with this effectiveness, for example, particular pedagogical approaches used by faculty, may be shared within and without the program.

Actions suggested by the assessment evidence may include:

- changing the curriculum, course content, or course sequencing;
- insuring that learning outcomes are adequately addressed within courses and across course sections;
- making improvements to the assessment methods and tools;
- requesting resources for faculty development, for example, to support learning new or different instructional methods;
- requesting resources to support instruction, for example, concerning technology;
- enhancing student support services, such as advising and tutoring; and
- revising program objectives and learning outcomes, and the ongoing implementation plan.

The following table displays examples of specific action plans developed by programs at NECC following the evaluation of assessment data.

Examples of Action Plans Following Outcomes Assessment

Program	Date of Assessment	Objective Assessed <i>(To assist students in the development of...)</i>	Outcomes Assessed <i>(The graduating student will be able to...)</i>	Next Steps/ Action Plan
Laboratory Science	Fall 2012	Oral Communication Skills.	Speak clearly and consistently throughout conversation or presentation	<ul style="list-style-type: none"> • Presentation assignments now in every course • Working with a faculty ‘communication coach’ • Gradually increasing spoken lab directions in upper level courses
			Describe a situation to the extent that listener can visualize experience clearly without questions	
Dental Assisting	May and June 2014	The necessary social skills, cultural awareness and professional attributes to practice successfully within the dental profession.	Effectively communicate with patients, family members and other members of the healthcare team.	In 2010 - 11 we found that dentists often awarded an “NA” under the heading “gives pre and post-operative” instructions. In 2014 faculty encouraged dentists to provide students with more opportunities to give post - operative instructions. (In this assessment)...students demonstrated competency in this skill.
			Exhibit professional conduct including reliability, responsibility, honesty and ethical behavior.	
Engineering Science	March 2013	The ability to identify, formulate and solve technical problems.	Analyze problems, that is, isolate and describe the important components of a problem: what is given (design specification, performance requirements, testing standards, etc.); what is known from previous experience relevant to the problem; and what the unknowns are.	Students will be continuously observed in the lab environment throughout the semester. The instructor will provide positive feedback to help the students achieve solid lab skills prior to the end of the course. In addition, students will have an opportunity to perform Inquiry Based Learning lab experiment. This type of learning module allows the student to be more creative with their thoughts and be more comfortable in the lab.
			Represent the problem in a visual form such as a schematic, flow chart, diagram or data table. This visualization will represent the components of the problem in a way that leads to the construction of a solution.	
			Demonstrate strong fundamentals in the ability to formulate and solve problems by applying principles of mathematics, science and engineering.	

Examples of Action Plans (cont.)

<p>Human Services</p>	<p>Fall 2012 and Spring 2013</p>	<p>Knowledge of the profession’s ethical code, as developed by the National Organization for Human Services (formerly NOHSE) and the ability to apply ethical reasoning skills.</p>	<p>Apply appropriate methods of resolving ethical dilemmas</p>	<p>All program faculty will be given the assessment results.</p> <p>HUS291, Human Services Practicum II has been revised to allow for more class time to cover the academic material and integration of experience. As of Fall 2014, the class will meet for two hours per week rather than only for one hour per week. It is expected that this increase in class time will allow for more thorough discussion of the concepts involved and the opportunity for small group work in the class to work through the questions and process of ethical reasoning with the assistance of faculty.</p> <p>During this next academic year, when the class will only be meeting for one hour per week, faculty teaching this course will spend more time with students reviewing the assignment with particular attention to those steps that have proven more challenging, based upon this analysis.</p>
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Action plans ideally include specifics as to implementation, such as who will be responsible, when, where, and how. Follow-up on the effectiveness of actions taken is also necessary, and methods to do so may be included in the plans. One such mechanism may be the implementation cycle itself, which calls for the assessment of the same outcomes at some specified time in the future. What effect did the changes have on students’ achievement of the desired learning outcomes? This continuous cycling, with numerous feedback loops, is what makes assessment a “process.”

Developing and implementing a program outcomes assessment plan requires a commitment of many resources, including time and people. Assessment is a process that works best when it becomes a mindset that is built into the ongoing functioning and work of a program – when it becomes part of the program’s culture. This is the ultimate goal.