Assessment 101:
Academic Program Assessment

Five Steps to Continuous Improvement of Student Learning

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Council Oak

During the 1830s, the Muscogee people were removed from their homeland in Alabama and relocated to Indian Territory. One clan settled in 1836 near what is now downtown Tulsa, Oklahoma and created their new busk (council) ground near an oak tree on top of a hill overlooking the Arkansas River. The site was used for Muscogee governmental and ceremonial activities until 1896. The village that grew up around the busk ground was named Talasi (Old Town). White settlers' mispronunciation of Talasi became Tulsey, and eventually Tulsa. The original oak is still standing, and is listed in the National Register of Historic Places as the Creek Council Oak. Members of the Muscogee (Creek) Nation hold an annual celebration at the site to remember their ancestors who came to Oklahoma.

The author is a native Tulsan, whose husband and children are citizens of the Muscogee (Creek) Nation and descendants of the people who came to Oklahoma in the 1830s.

Throughout history, various cultures have recognized the oak tree as a symbol for wisdom, strength, and endurance. As educators, we strive to develop these qualities within ourselves, our institutions, and our students. Council Oak Assessment was founded to offer you tools to help you develop strong and enduring processes to provide the best possible education for your students.

Other handbooks in the Assessment 101 series:

Assessment 101: Non-Academic & Co-Curricular Assessment

Assessment 101: Rubrics (Five Steps to Effective Rubric Design and Use)

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INTRODUCTION

My career as an assessment and institutional effectiveness director and consultant has taken me to many schools – large and small, public and private. When people call or e-mail me for help, they almost always begin by saying, "The accreditors are coming! We want to be sure our assessment is in good shape," or "Help! The accreditors just left and it did not go well."

I've seen many of the same problems over and over again. All of these problems can be fixed – many of them rather quickly and at minimal cost. It's usually just a matter of learning how to work smarter, not harder.

The Assessment 101 handbook series grew out of my time working with faculty, staff, and administrators to develop, improve, or maintain their assessment processes. I do that by helping them to identify what really matters within their academic programs, co-curricular programs, and administrative units, then working through some steps to study how well students are performing on the learning outcomes and how effectively and efficiently administrative units are achieving their performance objectives, then identify ways they can improve student learning or institutional effectiveness.

At some point, I learned that just handing people a blank template, giving them a pep talk and telling them to go forth and do assessment didn't work. Neither did better templates and better pep talks. Handout sheets with "how-to" instructions weren't much better. I decided it was time to practice what I preach, so I asked myself what really mattered, how well I was doing it, and how I could do it better. Here's what I learned:

1. *What really matters?* Making sure that assessment is "getting done," but that didn't just mean piles of completed assessment templates. It meant making sure people were working to improve things that mattered to them.

2. *How was I doing?* Obviously, templates, pep talks, and handouts didn't work. What did work very well was meeting with people to discuss what mattered to them, and helping them through the process of using assessment to make improvements. I saw better assessment documents from people I'd coached in person, and they saw improvements in the things that mattered to them. The feedback I received told me my teaching methods were effective, because people overcame their fear and resentment toward assessment and learned to focus on what mattered. There was one problem with that. I couldn't be in all places helping all the people all the time, so how could I maximize what seemed to work?

3. *How could I do it better?* I tried doing more one-on-one sessions, and group sessions of various sizes, and lots of PowerPoint bells and whistles, but people forgot some of the information. That led to the first *Assessment 101* handbook for academic assessment, then handbooks on non-academic assessment and other topics. The handbooks are guides that contain practical information about what assessment is (and is not), why it matters (not just accreditation), and how to do it right the first time. Each section includes a discussion of what, why, and how, followed by completed exercises from the fictitious Baker State University Bachelor of Science in Justice and Policy Studies (academic) and Baker State University Police Department (non-academic). The reader then completes each exercise. I've used these handbooks for over a decade in large workshops at conferences, small-group workshops at my home institution, faculty workshops for my consulting clients, and one-on-one training sessions. Some people prefer to just take the handbook, work independently, and contact me with questions.

   I hope you find the handbook useful for your own assessment work.

ORGANIZATION OF THE HANDBOOK

Assessment is a process that involves asking yourself five questions about your program, and following five steps to answer those questions.

Assessment Questions and Associated Steps

1. What should program graduates know and be able to do? (Step 1)
2. How do we know whether graduates know and can do these things? (Step 1)
3. Did student performance meet our expectations? (Steps 1,2,3)
4. How can we improve student learning? (Steps 3,4)
5. What will it take for us to improve student learning? (Steps 4,5)

Five Steps

Most of the material in this handbook revolves around those questions and how to complete the steps that will provide the answers. For each step, I'll provide some discussion of what that step is, why it matters, and some basic guidelines to follow. I'll give examples from the fictitious Baker State University Bachelor of Science in Justice and Policy Studies (JPS) program. With these examples, I'll simulate trying to do these steps for the first time, and I'll make a few mistakes. I'll review my work against the guidelines, make some revisions, and try again until I get it right. Then, I'll ask you to do the same thing. You'll find a set of Exercise Worksheets at the back of the handbook that you will use to draft, review, revise, and repeat each exercise until you're satisfied with your work. Don't expect to get every step just right on your first try, so take the time to review, revise, and repeat.

Most of my assessment work has been for colleges and universities accredited by the Higher Learning Commission (HLC). Because of that, some sections of the handbook contain highlighted references to HLC Criteria, Core Components, or sub-components to indicate where these activities support HLC expectations. The highlighted sections describe Assessment 101 processes that support HLC expectations (wholly or in part), or that will utilize information that can be taken from Assessment 101 plans or reports. Institutions accredited by other regional accreditors will likely find that these activities also support those expectations, but you should refer to their criteria or standards for specific requirements.

Programs that have specialized professional accreditation will usually find that the Assessment 101 model satisfies the assessment expectations of those organizations. Be sure to check the specific requirements of your specialized accreditor, however. The only exception I have encountered has been ABET, the specialized accrediting body for engineering and technology programs. One small adjustment to support ABET requirements is discussed in the Outcomes section of the handbook.

Before we get started on the steps and the exercises, please take a few minutes to read the basic information on the following pages. You'll find some of the vocabulary I use in the handbook, answers to some common questions about assessment, and a brief discussion of continuous improvement, which is central to any successful assessment system.

ASSESSMENT FAQS

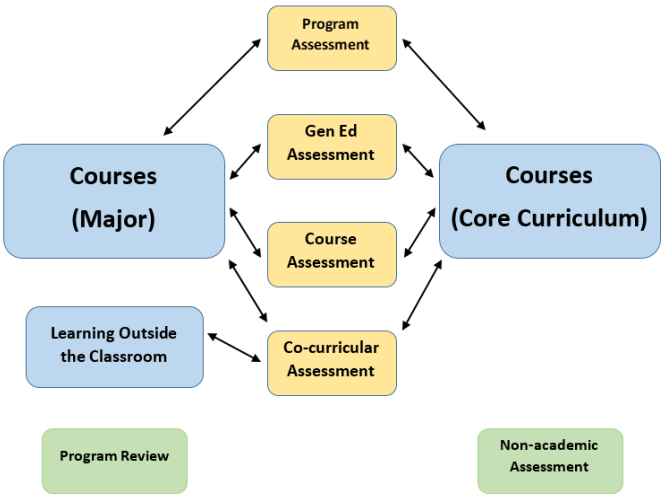
What is assessment?

The Merriam Webster online dictionary offers two definitions of *assessment*: the amount a person is officially required to pay for taxes or fees; and the act of making a judgment about something. The latter meaning is used in

so many ways that it can become confusing. We talk about classroom assessment, psychological assessment, career assessment, and others. We also use terms such as evaluation or testing to mean some of these same things.

Academic program assessment is a structured, iterative process used by faculty to study whether students who graduate have mastered the intended learning outcomes for a degree or certificate program, and make informed decisions about how to improve student learning over time.

Student learning occurs throughout the college experience, providing data for assessment at various levels. Assessment results are used to inform improvement in student learning. This handbook is focused on academic program assessment, but don't forget about the important activities in the graphic below. The arrows indicate how information about student learning in general education and major courses are used for course assessment, general education assessment, and program assessment. These assessment activities, in turn, should inform efforts to improve student learning about the curriculum. No arrows pointing to and from program review and non-academic assessment appear below, but both inform – and are informed by – assessment. Assessment results and continuous improvement efforts are documented as part of the program review process, and information from non-academic assessment about the effectiveness and efficiency of student support and administrative units can support institutional efforts to promote student success. Try not to think of these as parts of a comprehensive institutional effectiveness system rather than discrete activities that exist separately from the others.



- *Course assessment.* Used by faculty to study the extent to which students have mastered the course-level learning outcomes in a specific course, and make informed decisions about how to improve student learning in subsequent semesters. *(HLC 4.B)*
- *General education assessment*. Used by faculty to study the extent to which students from all majors have mastered the intended institutional learning outcomes (e.g., written communication, critical thinking) and make informed decisions about how to improve student learning over time. *(HLC 3.B.1, 4.B)*
- *Co-curricular assessment*. Used by faculty, student support staff, and other personnel to study the extent to which students have mastered the intended co-curricular learning outcomes and make informed decisions about how to improve student learning over time. Co-curricular learning is learning that happens outside the classroom. This includes such opportunities as student clubs and organizations, athletics, service learning, etc. Some institutions identify specific co-curricular learning outcomes, and others include co-curricular activities in their study of student learning on their general education outcomes. *(HLC 4.B.1)*

- *Non-academic assessment.* Used by administrative and student support units to study the extent to which they operate effectively and efficiently, thereby supporting the institutional mission and student success, and make informed decisions about how to improve in subsequent years *(HLC 5.A, 5.B, 5.C)*

- *Program review (academic and non-academic).* A comprehensive evaluation of an academic department, a set of related degree programs, an individual degree program, or an administrative or student support unit to measure overall quality and effectiveness and to decide whether a program or unit should be retained, modified, or eliminated. Program review includes information about the quality and availability of resources; faculty or staff qualifications; program cost and productivity; and assessment information. Assessment should occur on an annual cycle. Program review occurs over a longer cycle, typically every five years. *(HLC 4.A, 5.C)*

Assessment and program review are important components of *institutional effectiveness*, a set of systematic processes by which an institution evaluates itself on how well it is achieving key performance indicators in support of the institutional mission and strategic goals. The following important points are shared by all institutional effectiveness processes.

- They must be used to promote *continuous improvement* in student learning (academic and co-curricular programs), in effectiveness (non-academic and co-curricular units and programs), and in achievement of institutional and unit-level objectives – all of which ultimately support student success. *(HLC Cr. 4, 4.C, 5.C)*

- The information derived from these processes must be used to drive *planning and decision making* at the program, unit, division, executive, and institutional levels. *(HLC 5.A, 5.B, 5.C)*

- Assessment is not a periodic activity with a beginning and end. It is continuous and ongoing; each cycle provides information from the previous cycle, while informing decisions and activities in subsequent cycles. *(HLC Cr. 4, 4.C, 5.C)*

Assessment, when done well, occurs within the normal course of the academic cycle.
It is not meaningless and time-consuming work done solely to satisfy administrative requirements.

Why do we do assessment?

Continuous improvement of student learning in all programs is an important priority for educators who want to do everything possible to prepare graduates for success in life, in work, and in their further educational endeavors. Assessment planning and reporting allow faculty to report the specific learning outcomes they desire for their graduates, to collect solid evidence of how well those outcomes have been achieved, and to implement the actions necessary to improve student learning over time.

Assessment is required to receive and maintain institutional and specialized program accreditation. The Higher Learning Commission (HLC), other regional accreditors, and many specialized professional accreditation bodies place a heavy emphasis on the assessment of student learning. They also emphasize the use of assessment information to drive programmatic changes, pedagogical changes, and institutional planning and decision making – all intended to yield continuous improvement in student learning. Assessment is at the core of Criterion Four of HLC's *Criteria for Accreditation,* and appears in other Criteria. *(HLC 3.A.1, 4.B, 5.C)*

Other reasons to do assessment include:

- Help faculty understand student learning *(HLC 4.B.3)*
- Improve student learning *(HLC 4.B, 4.C, 5.C)*
- Inform curriculum decisions
- Improve pedagogy
- May help qualify for some grants

- Drive institutional budget & planning decisions *(HLC 5.C)*
- Better prepare students for their next steps (transfer, licensure, employment) *(HLC 4.C)*

Who must participate in assessment?

All academic programs – majors and certificates, undergraduate, graduate, and professional – must complete the assessment process on an annual basis. *(HLC 3.A, 4.B)* For assessment purposes, an academic program is an individual degree or certificate program. We may refer to the "English program," for example, when we are speaking about all the degree or certificate programs housed within the English department. Rather than completing a common assessment plan and report for the English *department*, it is necessary to complete separate documents for each distinct *degree* and *certificate* within the department (e.g., B.A. in English Literature, B.A. in Rhetoric and Writing, M.F.A. in Creative Writing, Certificate in Technical Writing, etc.)

Certificates have come under closer scrutiny by accreditation agencies in recent years. This is in response to U.S. Department of Education expectations that institutions demonstrate evidence of student learning outcomes for these programs that may be eligible for Title IV financial aid and are often marketed as preparation for certain areas of employment.

Our programs have external accreditation, and they already evaluate our assessment. Is it necessary for us to participate in the institutional assessment?

Yes. Although most specialized accreditors now require evidence that programs are measuring student learning, some still do not. We are still accountable to our institutional accreditation body for the assessment of student learning. There are some specialized accreditors that require programs to engage in the assessment of student learning, but are not prescriptive about how that should occur. Such agencies rely on the programs to participate in their institutional assessment activities and to document the evidence of those activities. You should review the assessment standards for your specialized accreditation, and consult with your faculty to ensure that your assessment work will satisfy those expectations as well as institutional expectations. Be sure to contact the assessment office with any questions. Aside from any accreditation-related requirements, please remember that the underlying purpose of assessment is the continuous improvement of student learning in all our academic programs.

When do we do assessment?

Scheduling of academic program assessment activities will vary somewhat from one institution to another, but a typical cycle will look something like this:

Fall semester	**Spring semester**	**Summer semester (depends on when your academic year begins)**
Assessment plan finalized	Continue to collect data	May continue data collection or begin next cycle (optional)
Implement action plans from previous cycle	Analyze/interpret data	Data analysis/interpretation/action planning/reports (if not done in spring)
Collect data	Identify action plans	
	Submit reports	

It is important to schedule the assessment cycle so that reports and resource requests that arise from assessment findings are submitted in time for consideration during the budget planning process for the next academic year. In order for action plans to be implemented in the subsequent cycle, there must be time for approval of resource requests and any related purchasing or hiring processes. (HLC 5.C)

Faculty already evaluate students, and students already evaluate faculty. Isn't this more of the same thing?

No. The purpose of academic program assessment is not to evaluate individual students or instructors. The purpose is to determine the extent to which students possess the intended knowledge and skills of the program when they graduate, and to use the information gathered to support improvement over time. *(HLC 3.A, 4.B)*

Will we be penalized if we do not meet all our outcomes?

No! Assessment offices do not tally the number of outcomes met, or report the numbers to administrators, governing bodies, or accreditors. We do, however, track the submission and quality of assessment documents. We provide feedback to faculty on whether their assessment practices are likely to provide meaningful information about student learning that can be used to make improvements. This is so important that programs that identify simplistic outcomes, weak measures, and unreasonably low targets receive lower ratings than those that set reasonable expectations, acknowledge when outcomes have not been met, and identify realistic changes to address any issues they identify. Administrators at many institutions rely on assessment information during the budget planning process to drive decisions about the allocation of funds. Programs whose budget requests clearly connect evidence about student learning to action plans aimed at improvement are more likely to receive requested funding than those who do not. Accreditors do not judge the number of outcomes we meet, but do expect evidence that we actively engage in honest assessment of student learning and use the information to drive decision-making aimed at continuous improvement. Recent information coming out of the U.S. Department of Education indicates they are beginning to think about connecting Title IV funding to evidence of improvement. This does not mean programs will be penalized or eliminated if outcomes are not met. It does mean that we must set ambitious but attainable targets for improvement from year to year, and take reasonable steps to hit those targets. *(HLC 5.C)*

We are not "graded" on the number of outcomes we meet, but on our efforts to collect meaningful information about effectiveness and student learning and then use that information to drive improvement.

Who is responsible for assessment?

Faculty have the primary responsibility for all assessment activities. Assessment staff guide and support the process; support personnel may assist with some activities; and adjunct instructors should play a role. It is important, however, that the faculty who are responsible for the curriculum also identify program learning outcomes, measures, targets for student performance, and also make any pedagogical or curricular decisions that arise from the analysis of assessment data. *(HLC 4.B)*

CONTINUOUS IMPROVEMENT *(HLC 4.B, 5.C)*

What is continuous improvement?

Continuous improvement is a philosophy that drives successful organizations. It is the ongoing effort to improve through the implementation of small, incremental changes that are identified by employees rather than by management or the research and development team. Improvements may be related to the quality of products or services, efficiency in manufacturing or delivery of goods and services, customer satisfaction, or any area important to the organizational mission. Continuous improvement is also called Kaizen, from the Japanese term for improvement. A core philosophy of post-WWII Japanese manufacturing, Kaizen is recognized as a key factor in the success of Japanese manufacturing over the last 50 years. It emphasizes ongoing reflection about what works well – and what does not – and using that information to eliminate processes and practices that do not contribute to organizational quality. Improvement is continuous and ongoing; with no end point in time or achievement of goals.

Continuous improvement focuses primarily on ideas for small changes that can be easily implemented, often at minimal cost. Most ideas will come from faculty or staff rather than administration, and involve minor changes to improve instruction, efficiency, or customer service to faculty, staff, and students. Although large scale change that is implemented all at once can be desirable and yield valuable results, it can be counterproductive to focus improvement efforts solely on large improvements. The narrow focus on large scale change can pull individual and organizational attention away from the smaller, more immediate changes that can add up to substantial improvement over time.

Walt Disney coined the term "plussing" in the early 1950s as Disneyland was being designed. He asked his engineers (or Imagineers as he called them) to always push a little further with each new idea and "plus it" to identify a way to make it even better. A variant of plussing practiced by McDonald's in the 1980s was used to train employees to always watch for small improvements they could make in their areas. The belief is that many small changes can add up to big improvements. The processes outlined in this handbook are similar to those in used in corporate continuous improvement models, but modified for higher education. Keep in mind that continuous improvement is not a series of discrete steps used to generate information for an annual report. It is a way of thinking about how we work and how small changes yield success.

What does continuous improvement have to do with assessment? The notion of using the principles of continuous improvement in higher education first appeared in the literature around 1990. During that time, major corporations were using Total Quality Management (TQM), an earlier term for continuous improvement, to enhance the quality and accountability of postsecondary education in the U.S. In 1992, IBM awarded $3 million grants to nine colleges to use TQM principles to improve teaching and research, and to adopt TQM principles in all operations (*9 Colleges Receive Grants, 1992*). Since then, increased emphasis on continuous improvement by accrediting agencies, governing bodies, and grant sources has made it necessary for institutions to incorporate these practices into all facets of their operations.

At about the same time that continuous improvement principles were introduced into higher education, increased accountability by institutions for students' learning was also gaining attention from the public, the federal government, and accreditors. The expectation that institutions will use data about student performance to make improvements was introduced, and has since been at the core of how we are expected to demonstrate that students acquire the knowledge and skills associated with the programs from which they graduate.

How can you practice continuous improvement in your assessment activities? As you work through the exercises in this handbook, you will learn the series of small steps that will form the foundation for your assessment practice. At each step, begin to think about how your program supports the institutional mission, how your outcomes and measures provide information about student learning, and how to improve student learning.

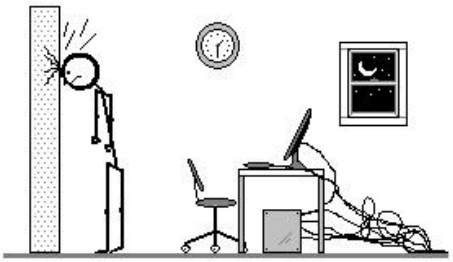
When the Disney Imagineers would present an idea during the design team meetings, Walt Disney would ask, "Did you plus it?" With each exercise in this handbook, stop for a moment before moving on and ask yourself "Did I plus it? How can I tweak this *just a little* to make it even better?" In the normal course of your work, think about how to implement the little ideas that come to mind. How can you make small improvements along the way?

Many small improvements by many people lead to substantial improvements over time.

STEP ONE: PLAN ASSESSMENT

The assessment planning stage is the most time-consuming part of the process, but good planning is a necessary foundation. Think of the assessment plan as the design and data collection plan for a small, but important, study that you will conduct over the course of a single academic year, and then replicate in future years. Your investment of time at the beginning to design a high-quality assessment plan will ensure that you collect data that will yield useful information about student learning and how it can be improved.

You will complete an initial assessment plan now, and update the plan each year when you submit your assessment report. This connects the results from the previous cycle to changes planned for the new cycle. It also coincides with the budget planning process for the next fiscal year. As new programs are created, remember to complete assessment plans for them, and include them in the cycle.



Barnes, 2011

If you have difficulty with assessment planning, STOP.

Call for help before you reach this stage.

Six components of an assessment plan

Mission › Goals › Outcomes › Measures › Targets › Sampling › **ASSESSMENT PLAN**

Each component builds upon the previous one, so be sure to create them in the correct order.

Let's begin writing our assessment plans together. The exercises that follow will include examples for the Baker State University B.S. in Justice and Policy Studies (JPS) degree. Use the exercise sheets at the back of the handbook to complete the exercises for your program.

ANALYZE PROGRAM MISSION *(HLC Cr. 1)*

It is important to consider the institutional, department, and program mission statements in the assessment planning process. This should occur during preparation of the first assessment plan, then be repeated each time the institution updates its mission statement and/or strategic plan. It may occur at other times, if department or program faculty choose to do so.

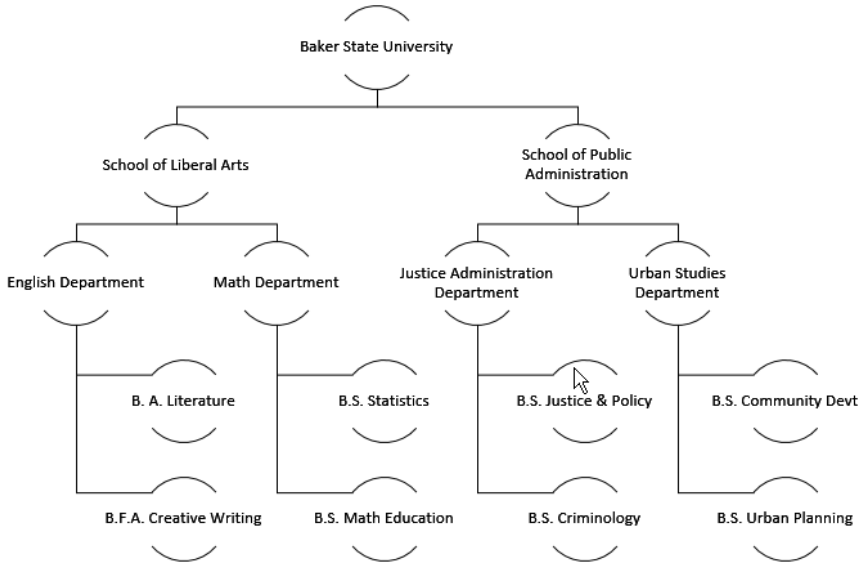
There are several reasons to analyze the mission statements:

1. The institutional mission is the foundation upon which everything we do is based. Departmental mission statements, and in turn program mission statements, should flow from and directly support the overall institutional mission. It should not be difficult to "connect the dots" and see the relationships between an institution and the academic and non-academic units that compose it.
2. Accreditors will evaluate how well an institution executes its mission through its academic programs and other endeavors.
3. Because it can be easy to forget the importance of institutional, department, and program missions in all that we do, assessment planning time provides an excellent opportunity to call our attention back to these statements of who we are and what we are about. This may prompt some faculty to review department or program mission statements and consider whether it is time to update them. That may, in turn, prompt fresh thinking about curriculum planning or other activities. Although this is not the primary purpose of assessment planning, it is one example of the unexpected benefits that some faculty report as a result of the process.
4. The program-level learning goals and outcomes for our assessment plans must be directly related to the program mission (and, by extension, those of the department and institution). You will be asked to evaluate these relationships as we prepare to develop outcomes.

The assessment office does not evaluate the quality of the mission statements prepared by academic units, nor do we evaluate the strength of the relationships among them or the programs being assessed. We typically collect this information only to help our faculty to focus on the issues outlined above.

The first step in preparing an assessment plan is to determine whether the program mission supports the institutional mission. We do that by reviewing the mission statements for each unit within the organizational hierarchy that houses the program. It is not necessary for the mission statement of each college, school, department, or program to exactly match the institutional mission. If we were to review the mission statements of every academic and non-academic unit within any institution, we would likely find that each unit places particular emphasis on those parts of the institutional mission that are related to its specific purpose and function; and that, across the board, the combination of the various units supports the institutional mission.

The organizational structure of Baker State University's academic programs is shown in the graphic below. In Exercise 1, we will review the mission statements for the University, the School of Public Administration, the Justice Administration Department, and the Justice and Policy program. Pay attention to the dotted line that runs from the University, through the School and Department, and ends at the JPS program. At each stage of our assessment planning work, we will check to be sure our work directly supports the previous stage. This helps to keep our focus on the specific program we're working on, and ensures that the final assessment plan is aligned with the purpose of the organizational hierarchy in which it serves. In other words, we should be able to review any part of the assessment plan and "connect the dots" all the way back up through the hierarchy to the institution's mission.



Example: What program will you work on today?

Enter the program name: *B.S. in Justice and Policy Studies*

Your Turn: What program will you work on today?

Enter the program name on your exercise sheet.

Baker State University Mission Statement. The mission of Baker State University is to provide a high-quality education, with a strong emphasis on teaching excellence, research, and service to our local, regional, national, and international communities.

School of Public Administration Mission Statement. The School of Public Administration (SPA) prepares students for public service careers in the not-for-profit and public sectors. The School strives to uphold the highest ideals of ethical and responsible public service and seeks to produce public leaders and managers who will exemplify those values in their professional practice. The administration and faculty of the School are committed to teaching, research, and social engagement that support and serve our local, regional, national, and global communities.

Department of Justice Administration Mission Statement. The Department of Justice Administration (JA) prepares students for professional careers in the criminal justice, social justice, and other law-related fields. The JA department provides its students a comprehensive and multidisciplinary education in the social, behavioral, historic, legal, and administrative aspects of the American system of justice. At the core of each JA academic program is the study and application of ethics-based decision making so that graduates are prepared to serve as ethical and responsible practitioners and leaders at the local, regional, or national levels in their chosen careers.

Bachelor of Science in Justice and Policy Studies Program Mission Statement. The mission of the BS in Justice and Policy Studies program is to educate the justice system's future leaders, policy makers, and practitioners. The BS JPS program provides a high-quality education in the history and foundations of the American system of justice as well as the current legal, social, ethical, and administrative skills necessary in an increasingly complex society. BS JPS graduates are prepared for further study at the graduate level or in law school, or for employment in the justice profession as researchers, administrators, or law enforcement officers.

Exercise 1 – Example: Review your mission statements

Does the School of Public Administration Mission Statement support the BSU Mission?

We believe that the SPA mission statement supports the BSU mission. It closely matches the emphasis on "service to our local, regional, national, and international communities." The SPA mission also emphasizes a commitment to teaching and research, which are part of the University's mission.

Note: as I responded to this question, I also underlined the relevant phrases in the BSU mission.

Does the Justice Administration Department mission statement support the School of Public Administration mission statement?

The JA mission statement supports SPA Mission Statement very well. It specifically mentions the preparation of students for public and non-profit careers, the emphasis on ethical standards, and the goal of producing ethical and responsible public leaders, and service to local, regional, national, and global communities.

Note: as I responded to this question, I also underlined the relevant phrases in the SPA mission. The JA mission seems to give greater emphasis to some elements of the SPA mission than to other elements. That's OK; remember that if you review the mission statements of the other departments in the School of Public Administration, you'll probably find that each one gives particular emphasis to those mission elements most related to the department's specific purpose. You will also expect to find that, overall, the SPA departments support the SPA mission.

Does the BS in Justice and Policy Studies Mission Statement support the JA Department Mission Statement?

The BS JPS Mission Statement supports the elements of the JA Mission Statement very well. It refers to the study of the American justice system, ethics, and preparation for graduate study or employment in a variety of related fields. Some areas that are not specifically stated in the program mission statement can be inferred, however.

Note that as I responded to this question, I also underlined the relevant phrases in the JA mission. The JPS mission seems to give greater emphasis to some elements of the JA mission than to other elements. That's OK; remember that if you review the mission statements of the other programs in the JA department, you'll probably find that each one gives particular emphasis to those mission elements most related to the program's specific purpose. You will also expect to find that, overall, the JA programs support the SPA mission.

Exercise 1 – Your Turn: Review your mission statements

Take a minute to review the mission statements for your institution and for your department. Do you believe that your department's mission statement supports the institutional mission statement? Very well? Somewhat? Not very well? You may want to underline or mark up those parts of the institutional mission statement that you believe are supported by your department's mission statement. Use the space provided on your exercise sheet to

record your thoughts about how well institutional mission statement and your department's mission statement, and any gaps you noticed.

Return to the department mission statement and underline or mark up those parts that are supported by your program mission statement. Do you believe that your program mission statement supports your department's mission statement? Very well? Somewhat? Not very well? Use the space provided on your exercise sheet to record your thoughts about the relationship between your department's mission statement and your program mission statement, and any gaps you noticed.

If you are unsatisfied with the degree to which any of your mission statements support those above them, you may want to initiate a later conversation with your colleagues.

LONG TERM GOALS --- re-work this section from p. 2x below and talk about framing or guiding thoughts. Combine those sections

What do you want your students to be when they grow up?

Based on the mission of the program, what hopes and aspirations do program faculty have for program graduates three to five years after graduation? Some examples are:

- Further academic study, such as completion of baccalaureate after transfer from community college, admission to graduate/professional school
- Employed in field of study
- Professional licensure/certification
- Contribution to scholarship of the discipline, including research, publication, or teaching

We use program goals only to help frame our thoughts about our expectations for our students. This will help as we write learning outcomes in the next step. Because the goals support the program mission, we also ensure that the learning outcomes directly support the department and institutional missions.

For most programs, faculty will have two or more goals for their program graduates. For undergraduate programs, in particular, there are many possible educational and career paths that graduates will follow. You do not need to identify all possible paths; a small number will suffice. It isn't necessary for you to be able to track students in order to identify these long range goals. You will likely track alumni, but that is not necessary for this step. Don't worry about following any rules or guidelines you may know about writing learning outcomes. We aren't talking about learning outcomes just yet. The purpose of this exercise is only to help you to start thinking about the outcomes we will soon develop.

Program goals should reflect long-term student outcomes, achievements, and success rather than programmatic inputs. Consider this example. The faculty in a professional degree program determine that one of the program goals is for graduates to obtain licensure in the professional field of the discipline. The goal statement for that program would be, "Program graduates will obtain the _____ license." A statement written as a programmatic input might say, "Our program trains students to be licensed _____." Do you see the difference? Think about what your *graduates will be doing* rather than what you do while they're students.

Don't obsess about your goals! Don't try to use what you've learned before about writing outcomes, and don't worry about whether you'll have data to know if students achieve these goals. This is just to start your thought processes before we work on learning outcomes in the next section.

Exercise 2 – Example: Write program goals

Draft two or three program goals.

Program graduates will be employed as effective and ethical law enforcement officers or administrators.
Program graduates will be admitted to graduate school or law school.
Program graduates will be employed in government or non-profit agencies that serve the criminal justice profession.

You're probably already thinking of a few primary goals for your graduates. Take a minute or two and enter them into the space provided in the *Assessment Plan Template.* Do the goals you listed support the mission of the program? Do they reflect what faculty want program graduates to achieve?

Are the goals above written as long-term student outcomes rather than programmatic inputs?
If not, revise the statements to focus on student outcomes, achievements, and success.

Review and revise the goals above, as needed.

No revisions were necessary.

Choose one program goal from the list above that you will use for today's work.

Our program goal for the BS JPS program is, "Program graduates will be employed as effective and ethical law enforcement officers or administrators."

Exercise 2 – Your Turn: Write program goals

Use the space provided on your exercise sheet to draft two or three program goals and revise them, if needed. Choose one program goal from the list above that you will use for today's work and record that on your exercise sheet.

OUTCOMES (HLC 3.A, 4.B)

In this section, we will develop program-level learning outcomes. We will look at two different methods. The first method is a traditional approach to writing learning outcomes, similar to what you have probably encountered before. The second method is a more recent approach that represents updated thinking about student learning, and offers considerable richness and depth compared to the traditional approach. Either method is appropriate to use. I generally suggest that institutions adopt one method for all programs, but you are free to use either or both as you choose.

OUTCOMES METHOD 1: TRADITIONAL

Introduction

Think about the program goals you developed in the previous step. What kinds of knowledge or skills will students need to have when they graduate in order to achieve that goal? Those are your program learning outcomes. Program outcomes are the intended learning outcomes of an academic program. They are the answers to Assessment Question 1: "What should program graduates *know and be able to do*?" Ask yourself, "In order to do that (the goal) 'out there,' What do they need to get 'in here'?"

Many people find that developing learning outcomes for assessment plans is the most difficult and time-consuming part of the process. If you follow the guidelines, it will become much easier with practice, and you will avoid problems with the subsequent steps. The time you invest now will save time later, and will ensure that you are able to collect useful assessment data. If you find that you are spending a large amount of time or becoming frustrated, you have let it become far more difficult than it needs to be. It's time to stop and review this section of the handbook or ask for help from the assessment office.

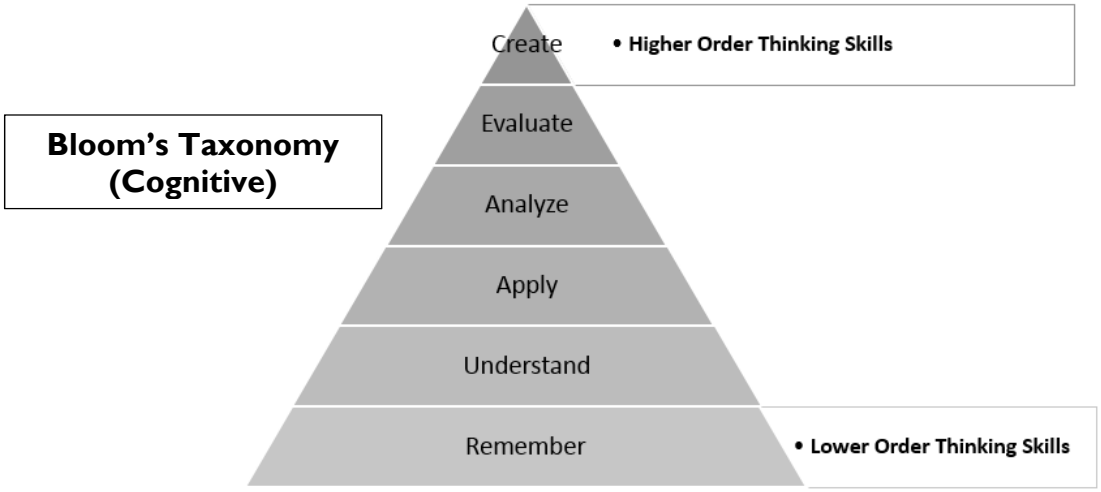
Outcomes for different academic levels

Are program outcomes for community college, baccalaureate, and graduate programs different? What about certificates and degrees?

The choice of program outcomes for your assessment plans should always be guided by the program mission and long-term goals for your graduates. In most cases, you would not have the same outcome for programs at different academic levels, because the credit requirements and work required of students will vary from one program level to another. The Higher Learning Commission requires institutions to demonstrate that they "articulate and differentiate learning goals" for programs and certificates at the various levels. Other accreditors will have a similar requirement.

However, there may be times when program faculty believe a specific learning outcome is appropriate for both an associate degree program and a baccalaureate program, or for a baccalaureate program and a graduate program, yet understand the need to differentiate between the levels. Here are some options:

- Modify the wording of the outcome to reflect different cognitive or skill levels for associate and bachelor's outcomes, or for bachelor's and graduate program outcomes. For example, you might define a community college outcome at Bloom's comprehension level, a bachelor's outcome at the analysis level, and a graduate outcome at the evaluation level. The action verbs on page 14 are associated with the cognitive domain levels of Bloom's taxonomy. This list can help you choose a verb for an outcome, or to revise an outcome from one associated with lower order thinking skills into one associated with higher order thinking skills. It is not an exhaustive list of verbs, and is offered only as a reference. There are similar lists available on the internet. Feel free to refer to those, but be careful – some include verbs such as *understand* that you should avoid.
- Use the same outcome for two programs, but use different measures for the programs. You might use a short constructed response question for an associate program, an in-depth constructed response question for a bachelor's program, and a complex project or comprehensive exam question for a graduate program.
- Use the same outcome and measure for two levels, but use different scoring rubrics. For example, you might develop a complex test question for a final exam in an undergraduate capstone and for a master's level comp question. Because you expect more complexity and sophistication in your master's students' responses, you would use different scoring rubrics for students at the two levels.
- Use the same rubric, and set different targets for performance that reflect the different expectations you have for students' performance.



Action verbs for levels of Bloom's Taxonomy

Lower Order Thinking Skills

Remember
define
describe
discover
duplicate
enumerate
examine
identify
label
list
listen
locate
match
memorize
name
omit
quote
read
recall
recite
record
repeat
reproduce
retell
select
state
tabulate
tell
visualize

Understand
ask
associate
cite
classify
compare
contrast
convert
demonstrate
describe
differentiate
discuss
distinguish
estimate
examples
explain
express
extend
generalize
give
group
identify
illustrate
indicate
infer
interpret
judge
order
paraphrase
predict
relate
report
represent
research
restate
review
rewrite
select
show
summarize
trace
transform
translate

Apply
act
administer
apply
articulate
calculate
change
chart
choose
collect
complete
compute
construct
demonstrate
determine
develop
dramatize
employ
establish
experiment
explain
illustrate
interpret
interview
judge
list
manipulate
modify
operate
paint
practice
predict
prepare
produce
record
relate
report
schedule
show
simulate
sketch
solve
teach
transfer
use
write

Higher Order Thinking Skills

Analyze
advertise
analyze
appraise
break
calculate
categorize
classify
compare
conclude
connect
contrast
correlate
criticize
deduce
devise
diagram
differentiate
discriminate
dissect
distinguish
divide
down
estimate
evaluate
experiment
explain
focus
illustrate
infer
order
organize
out
outline
plan
point
prioritize
question
select
separate
subdivide
survey
test

Evaluate
appraise
argue
assess
choose
compare
conclude
consider
convince
criticize
critique
debate
decide
defend
discriminate
distinguish
editorialize
errors
estimate
evaluate
find
grade
judge
justify
measure
order
persuade
predict
rank
rate
recommend
reframe
score
select
summarize
support
test
weigh

Create
adapt
anticipate
arrange
assemble
choose
collaborate
collect
combine
compile
compose
construct
create
design
develop
devise
express
facilitate
formulate
generalize
hypothesize
imagine
infer
integrate
intervene
invent
justify
make
manage
modify
negotiate
organize
originate
plan
prepare
produce
propose
rearrange
reorganize
report
revise
rewrite
role-play
schematize
simulate
solve
speculate
structure
substitute
support
test
validate
write

How many outcomes?

Program faculty should identify three to five program learning outcomes. That may not seem like enough when you think about all the things you want your students to learn, but the outcomes you select for program assessment purposes should reflect the primary things that program graduates should *know and be able to do*. You will be able to modify this list in subsequent years, if necessary. Some programs assess every outcome each cycle, and others may decide to assess only two or three each cycle. If your program won't be assessing all outcomes each cycle, think about how to rotate among them all. Here are some examples of how to do that:

- Follow a predetermined rotation each year;
- Identify one or two core outcomes that will be assessed every year, and rotate among the others each year;
- Identify one or two core outcomes that will be assessed every year, and assess one or two others that are related to recent programmatic changes that should be evaluated;
- Identify a subset of outcomes, repeating those that are not met, and replacing those that are met with new outcomes; or
- Group the outcomes into categories such as content knowledge, application, research, communication, clinical skill, or others. Select one outcome from each category during each cycle.

Outcome areas to consider

Start to think about the most important things that program graduates should *know and be able to do.* Those may be related to the one of the following areas:

- Program goals you identified earlier, or what students need to learn "in here" in order to achieve those goals "out there."
- Institutional or general education outcomes that are important to the academic discipline of the program, as discussed in the *Outcomes – Guidelines* section.
- Knowledge or skill areas related to licensure or certification in the professional field of the discipline.
- Knowledge or skill areas important for admission to graduate or professional school.

Some examples of broad knowledge and skill areas are shown in the table below. This is not an exhaustive list; you may identify others that are appropriate for your academic discipline.

Knowledge	Skills		
Theory	Analysis	Ethics	Research methods
Content knowledge	Application of theory/knowledge	Design skills	Team participation
	Clinical skills	Leadership	Technical skills
	Creativity	Oral communication	Written communication
	Critical thinking	Problem solving	

If you want to include outcomes that may seem ambiguous or difficult to measure, consider using the Association of American Colleges & Universities' (AAC&U) Valid Assessment of Learning in Undergraduate Education (VALUE) rubrics. The rubrics were developed as part of a large FIPSE-funded project. More about the project can be found at https://www.aacu.org/value/rubrics. The rubrics can be downloaded, free of charge, from the AAC&U web site. Although the rubrics were developed for undergraduate education, they can also be used to evaluate graduate work. Rubrics are available for the following outcomes:

Intellectual & Practical Skills	Personal & Social Responsibility	Integrative & Applied Learning
Inquiry and analysis	Civic knowledge/engagement(local & global)	Integrative and applied learning
Critical thinking	Intercultural knowledge and competence	
Creative thinking	Ethical reasoning	
Written communication	Foundations and skills for lifelong learning	
Oral communication	Global Learning	
Reading		
Quantitative literacy		
Information literacy		
Teamwork		
Problem solving		

Four Steps to Writing Outcomes

If this is the first time you've written learning outcomes or you want to improve your existing outcomes, follow these steps to break the task down into smaller pieces. This will help you to identify the most important things your graduates should *know and be able to do*, and then write high quality outcome statements. It will take a little longer as you develop your first outcome, but it gets easier as you work on your other outcomes. The same process we'll use here can be used to develop course-level learning outcomes, general education outcomes, and co-curricular learning outcomes.

1. Brainstorming and clusters
2. Broad outcomes
3. Focused outcomes
4. Outcome statements

Step One – Brainstorming and Clusters

Take a pad of sticky notes or scraps of paper. I like to use the 3 x 3 sticky notes. It's fine to use a single color, but if you're working with a group, you might want to give everyone a different color. Either way is fine.

As you begin to brainstorm, keep the following things in mind to help frame your thoughts about the most important knowledge and skills for program graduates. For example:

- What must students learn in order to achieve your long term goals for them?
- Is there a body of knowledge that is commonly considered essential to the academic discipline?
- Are one or more of your school's general education outcomes important for the discipline?
- What will help them be admitted to (and succeed in) graduate or professional school?
- What is required for licensure or certification?
- What are the skills necessary for graduates of technical programs to find jobs and succeed?

You're probably already thinking that some of these are important, and you may have thought of others. You may also wonder how you'll be able to capture these without going beyond the recommended three to five learning outcomes. Don't worry – as you work through the following sections, you'll soon see how a well-written outcome statement can cover two or more of the examples above. In fact, the outcome statement that you'll see me develop for Baker State University's bachelor's degree in Justice and Policy Studies supports the following:

- At least two (if not all three) of the long term goals I identified for the program (graduate/law school and employment)
- Body of knowledge essential to the Justice and Policy discipline (e.g., criminal law, social factors related to crime and the law enforcement profession, policy development and analysis)
- General education outcomes (written communication, critical thinking)
- Admission to (and success in) graduate or professional school

Later in this handbook, you'll see an example of an assessment measure and rubric that can also be used for multiple program outcomes, general education outcomes, and course-level outcomes. Think about how to get "more bang for your assessment buck," or greater value for your investment of time and effort on your assessment plan. This is what Walt Disney was talking about when he asked his teams if they had "plussed it."

Get your sticky notes or scrap paper out and get ready to brainstorm.

Think about the knowledge and skills that are important to the program. With those in mind, use sticky notes or scraps of paper to jot down words or short phrases for as many knowledge areas or skills as you can think of.

Start by taking one sticky note and write *only one* knowledge or skill area. Just a brief phrase for now – don't worry about action verbs, descriptors, or anything but just a few words. *For now, don't think about any rules about writing learning outcomes – we'll get to the rules later.* Here's my first sticky note:

Next, take another sticky note and write only more knowledge or skill area on it. Repeat this for as many as you can think of. It might help to look back at the bulleted list on the previous page to keep the ideas flowing. Don't put a lot of thought into this – just get your ideas down as fast as you can. Remember: this is a brainstorm. If a group of faculty members are working together on this, you might decide to use different color sticky notes.

Here's what I came up with for the JPS program:

After you've brainstormed and written down as many knowledge or skill areas for your goal as you can, take a minute to review the examples of knowledge and skill areas on page 15. Does this give you more ideas that you want to add to your collection of sticky notes? Sometimes, I find that the list of AAC&U VALUE rubrics on the same page also give me ideas about possible outcomes. If these lists help you think of more, write those on sticky notes. For the BS JPS program, I thought of several knowledge and skill areas to consider.

Rearrange your sticky notes into groups or clusters that are at least somewhat related to one another. You may identify areas of content knowledge that are closely related. You may realize that some sticky notes represent subsets of knowledge or skill represented on other sticky notes. That is fine; just group your sticky notes together in clusters that make sense to you. As you do this, you may see some sticky notes that you want to discard. Mark through them with an "X," if you want, but don't throw them away just yet – they may give you other ideas. You may also begin to think of additional words you'd like to add to some sticky notes to flesh out your ideas. That is ok, too. Arrange your clusters of related sticky notes on a sheet of paper or a flip chart and draw a circle around each cluster. Use this time to focus more closely on the specific things your students should know and be able to do when they graduate, if they are to be prepared to achieve what you hope for them.

As you reorganize your sticky notes into clusters, you will probably identify several broad knowledge and skill areas for your program. Those broad outcomes will likely include discipline-specific content knowledge and skills, and general areas such as critical thinking, research skills, quantitative reasoning, communications, or others. Each of those broad outcomes will have many possible specific learning outcomes, depending on the discipline, the level (associate, baccalaureate, graduate, professional), and the specific purpose and focus of the program. Assign names to those broad outcomes. Any names that mean something to you are OK. And remember – don't start thinking about "rules" just yet. We're still brainstorming. We'll call these clusters our Stage One outcomes.

I grouped the JPS sticky notes into four clusters: Content Knowledge, Communication, Critical Thinking, and Teamwork. These clusters don't show a direct relationship to the JPS degree program just yet. In fact, they could be broad outcomes for any program, or even general education outcomes. We will focus on the discipline-specific outcomes in the steps that follow.

Take a photo or save the sheet containing ALL your sticky notes as well as your clusters so you can refer to them later.

Exercise 3 – Example: Brainstorm and Clusters

Enter your sticky note cluster labels.

Content Knowledge

Communication

Critical Thinking

Teamwork

Exercise 3 – Your Turn: Brainstorm and Clusters

Review the instructions for this exercise, then use the space provided on your exercise sheet to identify the sticky note cluster labels for your program.

Step Two – Broad Outcomes

Each of the sticky note clusters for the JPS program could be used to identify several program-level outcomes. Let's now divide each cluster into several smaller outcomes that we'll call broad outcomes. For example, I divided the Communication cluster into two broad outcomes: Written Communication and Oral Communication. Broad outcomes may also have several possible outcomes associated with them. We'll call those focused outcomes. The table below shows several Clusters, Broad Outcomes, and Focused outcomes – all associated with the long term goals and important knowledge and skill areas we previously identified. As you can see, it would be possible to identify dozens of learning outcomes for an academic program, so the work we're doing now is important to keep our attention focused on those areas most important to the academic discipline.

We will complete the steps that follow for only one outcome in today's workshop. You might find it helpful to make a table like the one below as you work from broad outcome areas to a more focused outcome that will become an outcome statement for your program.

Exercise 3 – Example: Broad and Focused Outcomes

Enter one sticky note cluster label below. Next enter one broad outcome associated with that cluster and a focused outcome associated with the broad outcome.

Cluster: Communication

Broad Outcome: Written Communication

Focused Outcome: Policy

I have selected "Policy" from the list of possible focused outcomes associated with my long term goal. The arrows in the table below show the connection from this focused outcome, to the broad outcome, and to my sticky note brainstorm and clusters, which are related to connected to my JPS long term goal and/or important knowledge and skill areas and so on to let me "connect the dots" all the way back to the BSU mission. *(HLC 1.A.4)*

CLUSTER	BROAD OUTCOME	FOCUSED OUTCOME
Content Knowledge	Law	Criminal Law Constitutional Law
	Public Administration	Organizational management Personnel
Communication	Written Communication	Police Reports Policy
	Oral Communication	Public Speaking Community Relations
Critical Thinking	Ethical Reasoning	Belief Systems Police Ethics
	Law Enforcement Decisions	Community Impact Legal Consequences
Teamwork	Leadership	Facilitator Motivator
	Participation	Collaborative Supportive of Team Goals

Exercise 3 – Your Turn: Broad and Focused Outcomes
Use the space provided on your exercise sheet to identify your broad and focused outcomes.

Recall that one of my original sticky notes from the brainstorm exercise was about the ability to write policies. That's an important skill for anyone in public service. Even though I've narrowed my outcomes considerably in the previous steps, policy writing is still somewhat broad. I made some notes to help me decide on the specific kind of policy writing that will become the focus of my learning outcome. I decided to focus on writing good enforcement policies.

Exercise 3 – Example: Focused Outcome

Enter your focused outcome below.

Ability to write good enforcement policies.

Exercise 3 – Your Turn: Focused Outcome
If your focused outcome is still broad, revise it to focus on the outcome statement you'll flesh out in the next exercise. Use the space provided on your exercise sheet to identify your focused outcome.

Outcomes - Guidelines

Now that you've completed the brainstorm exercises, you know what your first program learning outcome will be. In the next step, we will write an outcome statement using your focused outcome from the brainstorm exercise.

This is where we start to think about the rules for writing good learning outcomes. There are several important guidelines (do's and don'ts) to consider when writing program outcomes.

1. **Write outcome statements that directly support at least one program goal or important knowledge or skill area.**

   This is important for two reasons. First, this will let you connect the dots all the way to your institution's mission. This is the final step in ensuring that assessment planning supports the mission of the institution and its constituent units.

   Second, it is important to ensure that the long term goals or knowledge and skill areas are adequately addressed within the curriculum and the assessment of student learning. Otherwise, how will faculty know that students have acquired the knowledge and skills necessary to achieve the long-term goals or knowledge and skill areas? And how will they identify curricular improvements aimed at helping students to achieve the learning outcomes that prepare students to achieve those long-term goals?

   If you find that you have identified an outcome that cannot be directly linked to one or more program goals or knowledge and skill area, ask yourself whether the outcome seems to support the program mission? If you believe it does support the program mission, you may have omitted a program goal or knowledge and skill area. Use this opportunity to make any necessary additions or revisions to your list of program goals.

2. **Write outcome statements that are observable and measurable.**

   Focus on observable behaviors rather than what students think, understand, appreciate, etc. We cannot measure what students know or understand, but we can measure how they demonstrate knowledge and understanding. Avoid outcome statements that say, "Students will understand …," or "Students will appreciate …." When you're tempted to use these, think about what students who understand or appreciate can DO with that understanding or appreciation. Also, don't say, "Students will demonstrate understanding, knowledge, ability, proficiency, etc." Talk about how they demonstrate them.

   I find that people use these because an outcome is important to them and they're stuck on how to write it. When you are tempted to use one of these, ask yourself, "If they know it, understand it, are able to demonstrate it, are proficient at it, etc., *what can they do with it that you can observe and measure.*

Weak	Better
Graduates of the BS JPS program will understand the Fourth Amendment to the Constitution.	Graduates of the BS JPS program will be able to analyze a current search and seizure issue.

3. **Write outcome statements that focus on knowledge and skills graduates should possess rather than curricular inputs or processes.**

   Avoid a focus on inputs or resources such as curriculum design, department resources, faculty characteristics, instructional methods, or learning processes. Rather than saying that students will learn, students will increase understanding, students will acquire knowledge, etc. Express outcomes in terms of what students will be able to do.

Input Focused	Outcome Focused
Faculty will improve their content knowledge through participation in professional development activities.	Graduates of the Art History program will be able to discuss the religious and political influences on 18th century European artists.
Department labs will be equipped with state-of-the-art instruments.	Graduates of the Physics program will be able utilize lab equipment to conduct experiments.
Students will deepen their knowledge of Art History.	Graduates of the Art History program will be able to compare the appearance and production techniques of contemporary and historic artifacts.
Students will gain a deeper appreciation of diverse cultures.	Graduates of the Sociology program will be able to analyze the impact of cultural differences on opinions about a neighborhood issue in an urban multi-ethnic community.

4. Write outcome statements that focus on knowledge and skills graduates should possess rather than their attitudes, beliefs, or other states of mind.

We are writing learning outcome statements, so it is important to focus specifically on learning rather than what students believe, appreciate, etc. That does not mean that students' attitudes, beliefs, or appreciation should not be impacted as part of their educational experience, or that we should not study those. These can, and should be, studied at various points such as course evaluations, graduate and alumni surveys, evaluations of co-curricular offerings, etc., but they should not be included as learning outcomes.

State of Mind	Knowledge or Skill
Faculty will improve their content knowledge through participation in professional development activities.	Graduates of the Art History program will be able to discuss the religious and political influences on 18th century European artists.

5. Consider incorporating general education outcomes, but do so within the context of the discipline.

General education outcomes such as critical thinking and writing are important skills that students ordinarily acquire across an undergraduate core curriculum. Therefore, learning in those areas cannot be directly attributable to instruction within the major and should be not be program-level learning outcomes. It is, however, appropriate and even desirable to incorporate relevant general education outcomes into program outcomes. This will provide faculty with the opportunity to demonstrate how students apply their communication, critical thinking, or other general education skills in ways that matter within the specific discipline of the major. This will enable you to see whether students write, think, etc., the way professionals in your field write and think, or in the way they will need to write and think when they enter graduate or professional school. A participant in one of my workshops said, "I want them to think like chemists." Great – she was taking her school's critical thinking general education outcome and working to express it within the context of her discipline. That was a good focused outcome for her to build on in the next exercise.

Incorporating general education outcomes into program-level outcomes can provide valuable information about student learning in those areas that goes beyond performance in individual general education courses or on standardized tests used for general education assessment purposes. We won't go deeply into general education assessment today; that's another workshop. For now, just know that the use of general education outcomes expressed as program outcomes can provide the basis for a robust institution-wide system of general education assessment.

It is unlikely that all of your institution's general education outcomes are relevant to your program. For example, a B.A. in creative writing program would emphasize writing skills in the major coursework, but probably would not emphasize quantitative skills. A B.S. in math, however, would certainly emphasize quantitative skills but may not emphasize writing. If one or more general education outcomes are important in your program, think about how you expect students to demonstrate those skills *within the*

context of your academic discipline, and write learning outcomes that express what that skill looks like for your program majors.

Weak	Better
Graduates of the BS in Justice and Policy Studies program will be critical thinkers.	Graduates of the BS JPS program will be able to analyze a current issue in criminal justice.

6. For programs that have specialized accreditation or certification, write outcome statements that take those assessment expectations into consideration.

Most specialized accreditation organizations require accredited programs to engage in assessment. The processes covered in this handbook will satisfy the expectations of most accreditors, but be sure to review any special requirements they may have. Some specialized accreditation organizations focus on curriculum design or other inputs rather than student outcomes. For those, you may want to write an outcome statement that addresses an input-based standard from the perspective of student-based outcomes. Some specialized accreditors, such as ABET, provide specific learning outcomes that institutions must measure. Although the language and format of those mandated outcomes may not adhere to our guidelines, you should use the specific language provided by the specialized accreditation agency.

In order to avoid two parallel assessment systems, adapt these guidelines to meet the requirements of specialized accreditors.

External Standard	Outcome Aligned with Standard
American Bar Association Standard 302(a)(2) A law school shall require that each student receive substantial instruction in legal analysis and reasoning, legal research, problem solving, and oral communication.*	Graduates of the Juris Doctor program will make effective use of technology in legal research.

*This was taken from the *ABA Standards and Rules of Procedure for Approval of Law Schools (2013-2014)*. As of 2014-2015, ABA now requires law schools to establish learning outcomes and assess student learning on those outcomes. The new Standard 302.(b) states that, "A law school shall establish learning outcomes that shall, at a minimum, include competency in … legal analysis and reasoning, … .) I will continue to use the older version as an example of an external standard to be considered when writing outcomes.

External Accreditation Outcome	Outcome Specified by External Standard
Accreditation Board for Engineering and Technology (ABET), Criteria for Accrediting Engineering Programs, Criterion 3, outcome f: "Understanding of professional and ethical responsibility."	Because this is a specific outcome mandated by ABET, we would use it as written and not modify it according to our guidelines.

7. Write outcome statements that do not combine multiple outcomes in a single statement.

Avoid the temptation to bundle everything you value about your program into a lengthy outcome statement. Stay focused on clear and simple outcomes that will yield high quality information. There are times, however, when an outcome must be rather complex in order to capture the complexity of a particular program. We sometimes think of such outcomes as being so "interwoven" that to separate the elements into separate outcomes would somehow diminish the richness of the assessment. When evaluating your outcome statements, be careful not to lump multiple elements into a single statement unless you truly have a complex outcome for a complex program. See the examples below.

Multiple outcomes (5)	Single outcome (1)	Complex outcome (1)
Graduates of the ___ program will be **(1) lifelong learners** who **(2) understand the concepts of psychology** and can **(3) apply those concepts** to **(4) design** and **(5) conduct research studies.**	Graduates of the ___ program will be able to **(1) conduct research**.	Graduates of the ____ program will be able to function in a team-based interdisciplinary environment to solve complex problems.

One of the best ways to fix multiple outcomes is to collapse them into a single outcome. A common example is an outcome that refers to program graduates' ability to "design and conduct research studies, and communicate the results of their research both orally and in writing." This is easily resolved by saying that program graduates will be able to conduct research. Through the use of a well-structured rubric, program faculty can separately evaluate students' ability to design a study, collect data, analyze data, interpret results, write research reports, and communicate their findings to others. Such a rubric will permit faculty to give feedback (and grades) for each of the separate components, and then arrive at an overall grade for the project. This same approach can be used for any individual or group written or performance projects that can be assigned to students. We will see later that this approach can also yield rich assessment information that can be used to identify specific strengths and weaknesses in your students' abilities.

8. **Write outcome statements that are short and concise.**

   Longer statements tend to be vague or include multiple outcomes. Don't include long description of the assignment or rubric. You may include those with the report, if you want them stored as part of the record. Also, avoid adding extra words to describe what is called for in the outcome. Some common examples of this are: effective(ly), satisfactory, advanced. Words that describe *how or how well* the student should demonstrate the knowledge/skill of the outcome should be used in a rubric used to evaluate student performance and/or in targets for student performance, which will be covered later in this handbook.

9. **Don't be afraid to consider outcomes that may seem too vague or too difficult to measure.**

   If you have an idea about an outcome that you consider important to your program, but it doesn't seem to fit these guidelines, contact the assessment team. We may be able to help you identify an appropriate measure for your outcome, or to revise it into something more easily measured. There are high-quality ways in which you can measure critical thinking, creative thinking, ethical reasoning, and other important skills you may value, but are hesitant to use. You might also refer to the AAC&U VALUE Rubrics. Choose one of the rubrics that is related to the outcome you are trying to write, and review the definition, framing language, and glossary for the rubric as well as the rubric itself. Some faculty I've worked with have found language there to help clarify what they have in mind for an outcome.

10. **Write outcome statements in the form of "Graduates of the _____ program should be able to _____."**

    This format will help you to avoid many of the problems described in the preceding paragraphs.

Exercise 3 – Example: Outcome Statement – First Draft

After you have read the guidelines starting on page 21, write the first draft of a program outcome statement based on the focused outcome you selected in the brainstorming exercise. Don't worry about perfection – you'll have an opportunity to review this draft and make revisions.

Write the first draft of your outcome statement below.

BS JPS graduates who enter law enforcement will be critical thinkers and will have high clearance rates for investigations.

(OK, this isn't really from my sticky note, but I want to show an example.)

Review your draft outcome statement to determine whether all the guidelines have been met. In the space provided, indicate which guidelines were – or were not – met in your draft outcome statement.

The example below shows the results of the review of my draft outcome statement, with explanations about each. I did not meet several guidelines, so I will need to revise the outcome in the next exercise.

Are the Guidelines Met?		Comments
✘	Support one or more goal or knowledge/skill area	High clearance rates are important, but unrelated to BS JPS goals.
✔	Observable and measurable	Crime statistics are readily available.
✔	Focus on knowledge & skills, not inputs or processes	Solving crimes and closing cases is an outcome rather than a curricular input.
✔	Focus on knowledge and skills, not attitudes, beliefs, or other states of mind	Describes outcomes, not attitudes, beliefs, or affective measures.
✘	Consider general education, if relevant, within context of discipline	Expresses critical thinking in context of the discipline, BUT, the BS JPS program trains students in criminal justice *administration*, not *investigation*.
✔	Consider external accreditation, if any	Agency might be CALEA accredited, but degree programs are not.
✘	No multiple outcomes	This is two outcomes.
✔	Short and concise	This is not an overly wordy outcome.
✔	Seek assistance if an important outcome seems too vague or difficult to measure.	
✘	Graduates should be able to _____	This is not in the correct form.

Exercise 3 – Your Turn: Outcome Statement – First Draft

Use the space provided on your exercise sheet to write the first draft of your outcome statement.

Review your draft outcome statement to determine whether all the guidelines have been met. Use the space provided on your exercise sheet to indicate which guidelines were – or were not – met, and make notes about your review.

Exercise 3 – Example: Outcome Statement – Revised

Use the information from the review of your draft outcome statement to write a revised version. If necessary, review the guidelines on page 21.

Write the revised draft of your outcome statement below.

BS JPS graduates will be able to apply knowledge of social, behavioral and constitutional issues to develop well-written policies that are legally defensible and socially acceptable to key stakeholders.

Review your revised outcome to determine whether all the guidelines have been met. In the space provided, indicate which guidelines were – or were not – met in your draft outcome statement.

The example below shows the results of the review of my revised outcome, with explanations about each. I corrected some of the issues from the first draft, but still did not meet two guidelines. I need to make further revisions.

Are the Guidelines Met?		Comments
✔	Support one or more long-term goals	This outcome is directly related to our long-term goal.
✔	Observable and measurable	There are many ways students can demonstrate these skills.
✔	Focus on knowledge & skills, not inputs or processes	Demonstration of content knowledge and skills is outcome-focused.
✔	Focus on knowledge and skills, not attitudes, beliefs, or affective measures	Describes outcomes, not attitudes, beliefs, or affective measures.
✔	Consider general education, if relevant, within context of discipline	This is related to written communication and critical thinking.
✔	Consider external accreditation, if any	Agency might be CALEA accredited, but degree programs are not.
✘	No multiple outcomes	This is multiple outcomes combined in a single statement:
✘	Short and concise	This is somewhat wordy – a red flag for multiple outcomes.
✔	Graduates should be able to _____	This is in the correct form.
✔	Seek assistance if an important outcome seems too vague or difficult to measure.	

Exercise 3 – Your Turn: Outcome Statement – Revised

Use the space provided on your exercise sheet to write the revised draft of your outcome statement. Review your draft outcome statement to determine whether all the guidelines have been met. Use the space provided on your exercise sheet to indicate which guidelines were – or were not – met, and make notes about your review.

Exercise 3 – Example: Outcome Statement – Final

Write the final draft of your outcome statement below.

BS JPS graduates will be able to write enforcement policies.

Are the Guidelines Met?		Comments
✔	Support one or more long-term goals	This outcome is directly related to our long-term goal.
✔	Observable and measurable	There are many ways students can demonstrate these skills.
✔	Focus on knowledge & skills, not inputs or processes	Demonstration of content knowledge and skills is outcome-focused.
✔	Focus on knowledge and skills, not attitudes, beliefs, or affective measures	Describes outcomes, not attitudes, beliefs, or affective measures.
✔	Consider general education, if relevant, within context of discipline	This is related to written communication and critical thinking.
✔	Consider external accreditation, if any	No accreditation standards apply.
✔	No multiple outcomes	This is a single outcome.
✔	Short and concise	This is short and concise.
✔	Graduates should be able to _____	This is in the correct form.
✔	Seek assistance if an important outcome seems too vague or difficult to measure.	

Exercise 3 – Your Turn: Outcome Statement – Final

Use the space provided on your exercise sheet to write the final draft of your outcome statement. Review your draft outcome statement to determine whether all the guidelines have been met. Use the space provided on your exercise sheet to indicate which guidelines were – or were not – met, and make notes about your review.

OUTCOMES METHOD 2: ALTERNATIVE

In his National Institute for Learning Outcomes Assessment (NILOA) Occasional Paper, *To Imagine a Verb: The Language and Syntax of Learning Outcomes Statements,* Adelman (2015) offers an updated approach to writing learning outcomes. In this paper, he argues for an approach based in linguistics and philosophy, with a focus on syntax (the arrangement of words in a sentence) and semantics (the study of meaning). Adelman's approach leads the reader toward learning outcome statements that are richer and more complex than those developed using the more traditional approach outlined in the previous section. Programs that choose to adopt the Adelman approach can use the advice contained within the paper to write rich outcomes that incorporate his philosophy, or they may choose to adopt a subset of the outcomes from the Degree Qualifications Profile (DQP).

DQP, funded by the Lumina Foundation and first published in 2011, was a collaborative effort that involved higher education leaders, educational association representatives, and others. The purpose is to clearly identify what students should know and be able to do as they move through progressively higher educational levels (associate, bachelor's, master's). DQP is not intended to serve as a set of standardized national learning outcomes for American colleges and universities. Through a process known as *tuning,* institutions may modify the base language of the outcomes to fit discipline- and institution-specific contexts, but many institutions have adopted the DQP outcomes without modification. For those who prefer to engage in a tuning process, no-cost coaching and support are available through NILOA and the Lumina Foundation. See the DQP web site at http://degreeprofile.org/ for more information about DQP, including free downloads of all DQP documents.

Before you begin to work with the DQP outcomes, it's a good idea to read through the information on the web site, especially the 57-page Degree Qualifications Profile publication. For now, take a few minutes to read the bulleted list on page 3 of the DQP document for ways in which institutions have been using DQP, and read the five DQP learning categories on page 5 of the DQP document.

If you decide to use DQP outcomes as program learning outcomes, you should include a short statement about why you believe each outcome you select is important to your program. This will clearly communicate the connection between your discipline and the somewhat generic language of the DQP outcomes.

When I use DQP outcomes as program outcomes, I do not write the entire DQP outcome language on my assessment plan template. I use the number, header, and name from the DQP grid. Notice that the Intellectual Skills category is actually six different outcomes. If you select from that category, be sure to indicate which outcome(s) from the list you've selected.

Exercise 4 – Example: DQP Outcome

Review your long term program goals and important knowledge/skill areas in Exercise 2. Select one DQP outcome that supports the goal or knowledge/skill area you're working on today.

Write the name of a DQP outcome below.

DQP 3 – Intellectual Skills – Analytic Inquiry.

Next, write a brief statement of why you believe this outcome is important to your program.

BS JPS students are expected to analyze and create policies that integrate knowledge from multiple content areas (law, sociology, etc.)

Exercise 4 – Your Turn: DQP Outcome

Use the space provided on your exercise sheet to write the name of your first DQP outcome and write a brief statement of why you believe this outcome is important to your program.

Next, write the name of your second and third DQP outcomes and brief statements of why you believe these outcomes are important to your program.

OUTCOMES - SUMMARY

Stakeholder input *(HLC 4.B, 5.C)*. The exercises in this workbook call for you to complete the work for a single learning outcome. Plan to seek input from important stakeholders before you repeat the process for your other outcomes. Who are your stakeholders? Common stakeholders for this process include advisory groups that support the program, employers, and the faculty from transfer or graduate/professional programs that accept your students. I do not insist that programs elicit and document stakeholder involvement, but I do provide space on the assessment planning template for you to note any stakeholders you consulted.

Alignment of outcomes (HLC 3.A, 4.B)

At this point, you should refer to the curriculum map for your program to ensure adequate coverage for all program outcomes. You should also work with course instructors to ensure that outcomes are properly reflected in course syllabi. If you are working on an undergraduate program, I encourage you to map your program outcomes against your institution's general education outcomes. This should happen with all undergraduate programs, and the results should be examined to ensure that the general education outcomes are being addressed within the majors and upper division courses, and not just the lower division "gen ed" courses.

A final thought on learning outcomes *(HLC 4.B)*

When your assessment plan is complete, think about how you will communicate the outcomes. Obviously, you will submit them to the assessment office, upload them to your institution's assessment software system (if any), and possibly post them on the web site. But what about students? You should plan to share the outcomes with current as well as prospective students to communicate with them about the knowledge and skills they should acquire in the program. Many schools publish this information on their web sites, in the catalog, and in program brochures or other recruiting materials. You should also include them on course syllabi, with information that shows the alignment of program outcomes with both institutional and course outcomes.

MEASURES (HLC 3.A, 4.B)

"If you cannot measure it, you cannot improve it." (Baron Kelvin, 19th century physicist known for his work in thermodynamics). In the previous section, you developed a program-level learning outcome that defined one area of what your students should know and be able to do before graduation. In this section, you will select measures of student learning on that outcome. Measures answer the question of how we know whether graduates know and can do the things in our outcomes. Think about where in the curriculum students have opportunities to learn the content or skill of the outcome, and where they have opportunities to try out and demonstrate their learning. You should identify two direct measures of student learning, and one indirect measure.

A direct measure is one in which students demonstrate their learning through a performance of some kind. In other words, the students have to actually *do something*. Direct measures include exams, projects, and others activities where the students demonstrate their knowledge or skill.

An indirect measure is one that does not call on students to demonstrate their knowledge or skill, but provides other information from which we can draw inferences about student learning. Rather than relying on some *evaluation* of students' demonstration of their learning, indirect measures rely on *perceptions* of student learning by students, alumni, or some third party. Third parties are typically employers of program graduates or faculty in graduate or professional programs that admit program graduates. Surveys and employment data are the most common indirect measures.

Internships and practicums sometimes cause confusion. They are direct measures – not indirect. Even though they rely on third party information, they are an evaluation of students' direct demonstration of their learning. The third parties in this case are qualified experts identified by faculty to provide real-world opportunities for students to apply their learning and to give feedback about student performance. This is also true for juried events for the creative or performance arts.

Examples of direct and indirect measures are shown below.

Direct	Indirect
Capstone (project/paper/portfolio)	Student surveys & focus groups
Standardized tests (ETS field tests, etc.)	Exit surveys and interviews
Presentations/oral defenses	Alumni surveys and interviews
Classroom exams or quizzes	Employer surveys and interviews
Classroom/homework assignments	Job placement data
Course projects	Admission to further academic study
Papers (research, term, creative, etc.)	Course evaluations (depending on the items)
Internships or practicums	
Design projects	
Practical clinical assessments*	
Artistic creations or performances	
Classroom discussions	
Online discussion threads	
Licensure/certification exams	
Publications/presentations	
Master's theses or doctoral dissertations	

Be sure to follow these guidelines when identifying appropriate measures for your outcomes:

1. **Identify three measures for each outcome**. The first and second measures must be direct measures, and the third must be an indirect measure.
2. **Measure student learning on the outcome near the end of the program.** Remember that the purpose of assessment is to study the extent to which program graduates possess the desired knowledge and skills. Identify those points in the curriculum where students have opportunities to demonstrate their knowledge or skill related to the outcome, then select a point where they can best demonstrate that knowledge or skill. Focus on capstone or other culminating experiences, upper division coursework, and those points that will let you draw reasonable inferences about program graduates. Avoid the temptation to select exams or assignments from earlier in the program; you wouldn't want that work to represent what your graduates know and can do.

   What about formative assessment? That is outside the scope of this handbook, but you should plan to examine student performance related to your outcomes at key points through the curriculum, to study whether students are on track to meet performance expectations at the end. If you identify areas of weakness at an early point in the curriculum, there is still time to take corrective measures that may help students either meet performance expectations or at least minimize the extent to which they do not meet expectations so you can identify further corrective measures for the next cycle.
3. **Avoid purchasing or creating additional tests or other assessment activities simply to satisfy your assessment data collection needs.** In other words, rely on *course-embedded* assessment. I don't recommend using standardized tests for assessment unless they are closely suited to your program and will provide you specific information about your students. That is rarely the case. These tests can be very expensive, and students are not motivated to do well on them if they are not part of a course grade. Even with incentives, institutions have great difficulty getting their students to do well on these tests. Focus on the exams, projects, or other measures of student learning that already occur as part of your existing instruction and testing activities. If you have difficulty identifying appropriate measures for an outcome, you may want to consider whether students are having opportunities to demonstrate their learning on the outcome – or whether the outcome is an appropriate one for your program. If the outcome is an important one, but is not adequately measured, program faculty will need to identify appropriate measures.

4. **Course grades and course completion are NEVER appropriate measures of student learning.** Course grades are based on overall satisfaction of course requirements rather than performance on a specific program-level outcome. Those course requirements typically include course-level outcomes that are not all directly related to a single program outcome. Course grades may reflect extra credit for attendance, class participation, or other things unrelated to program outcomes. Course grades alone do not provide specific information about the concepts mastered by students or those concepts that proved challenging – important information for faculty to consider in order to support continuous improvement of student learning.

   Consider the following example of two students who successfully completed JPS-442 (Policy for the Justice Administrator). The course content included a historical review of common justice policies, exercises in analyzing the effectiveness of past and present policies of a metropolitan police agency, and a final exam in which students analyze samples of policies and recommend improvements. The instructor considers attendance to be important, so 10% of the course grade is based on attendance. Students who miss three or more class sessions receive no credit for attendance.

Assignment	Weight	Student A	Student B
Attendance	0.10	100.0	0.0
History quiz	0.15	90.0	92.0
Homework	0.15	90.0	96.0
Midterm	0.30	89.0	98.0
Final	0.30	88.0	100.0
Total		***90.1***	***87.6***
	Course Grade	**A**	**B**

   If JPS faculty chose to use course grades from JPS-442 as a measure of student policy-writing skills, it would appear that Student A had graduated with better policy-writing skills than Student B. In reality, Student B performed much better than Student A on the only direct measure of policy writing from the JA-442 class.

   Now, review three program learning outcomes for a Business Administration program.

   Program graduates will recognize the value of good ethical standards in their application to business and the importance of corporate social responsibility.

   Program graduates will apply management principles and concepts necessary for effective, efficient business practices

   Program graduates will recognize the culturally diverse workplace and the need to respect varying points of view

   Here are the course learning outcomes for the Principles of Management course:

   After successfully completing this course the student should be able to:

   1. Explain the major functions of management including planning, organizing, communications, controlling, motivating, leading, and staffing.

   2. Explain major developments in the history of management thought.

   3. Describe the basic managerial process including the key skills necessary for managers to perform their roles.

   4. Identify an organization's stakeholders and the importance of social and ethical responsibility of managers.

   5. Explain the relationship between goals, plans, vision statements, and mission statements.

6. Demonstrate an understanding of the components of strategy formulation and implementation and managerial decision making.

7. Define and explain organizational change, forces for change, and sources of resistance to change and explain techniques managers can use to implement and facilitate change.

8. Explain the strategies managers use to help organizations adapt to changing conditions in the internal, task, general, and global environments. and the course learning outcomes for the Principles of Management Course.

The major assignments for the course are a research paper and a group project. Parts of either or both of these rich assignments are listed as measures for all three outcomes, and specific sections of the scoring rubrics for those assignments were used to evaluate student performance in relation to each outcome. It's good that the faculty knew how to get more "bang for their assessment buck" by using these rich assignments for multiple learning outcomes. It's also good that they focused on specific rubric sections to study learning on each outcome separately.

Look at any one of the three program learning outcomes and review the course learning outcomes. Are all eight course learning outcomes related to any single program learning outcome? No!

As they completed their first assessment cycle using these methods, the faculty told me they had gained a better understanding of their students' learning and could identify patterns of strength or weakness on the program learning outcomes. They used that information to identify specific actions aimed at the improvement of student learning. The program director was later invited to speak at two national conferences about this experience, which was really just using a common-sense approach to make small changes.

But what if the measures for these outcomes had been listed as "Course grades in (or successful completion of) Principles of Management?" Course grades were based on performance on all the course outcomes plus attendance and turning homework in on time. What would course grades tell them about whether students knew and could do the things indicated in the program outcomes?

This is not to say that it isn't important to analyze course completion rates, grade distributions, and other data about classroom performance. These data are commonly used by faculty and administration to identify patterns of student performance, and by institutional researchers as part of their study of student persistence and completion.

5. **An overall grade for an exam, project, etc. may or may not be appropriate.** It is common for faculty to report a final exam or project as a direct measure for one of their outcomes. Before doing so, consider whether the exam or project measures only student learning related to the program outcome. Final exams typically cover course content from throughout a semester, much of which may be unrelated to the outcome (although it may be related to another program outcome). When this is the case, be sure to clearly indicate the specific exam item(s), section(s) of a paper, or portion of a project that will be used to measure student learning specifically on one outcome. For example, a learning outcome related to critical thinking might be measured in a capstone project that also measures student learning on oral and written communication, regulatory/ethical issues within the discipline, and quantitative analysis. For such a project, the measure might be a portion of the project that calls for students to analyze a variety of possible solutions to a problem, recommend the best solution, and support the recommendation. In that case, the instructor might list the measure as, "Recommendation section from capstone project in [Course Number and Course Name]. For a cumulative math final exam, the instructor would identify a subset of the test items that measure learning specific to the outcome. Once you're more experienced with assessment measures, it may make more sense to list the name of the project, etc. here. If you do that, remember to use the targets for the measure (explained in the next section) to focus on the specific part of the measure to be analyzed.

6. **Be specific.** Rather than saying "tests," say, "Final exam in JPS 428, Senior Capstone." Rather than "research papers," say, "Research paper in JPS 393, Social Issues in Law Enforcement." By identifying a specific exam or assignment in a specific course, you are creating a data collection plan for your program assessment. For surveys, indicate the specific item(s) that will be used to measure the outcome. For example, "Exit survey item that asks the extent to which the BS JPS program helped students to develop their analytical thinking skills." Otherwise, you may be leaving your data collection to chance and fail to collect important information about your students' learning.

   One exception to this is when a small program whose students may not take the same upper-level courses decides to select complex student work from several different classes. The work may include papers written in response to different assignments, portfolios, student projects, and a variety of artifacts. In this case, the instructors for the various classes might decide to use a common rubric for the portions of the student work related to the outcome. Alternatively, the course instructors might use their own separate grading procedures, and then provide the student work to departmental faculty with assessment responsibility. Those faculty will, in turn, conduct a secondary review using rubrics such as the VALUE rubrics or components of the Lovitts (2007) rubrics (for doctoral dissertations). This is a particularly strong assessment practice that can yield high-quality information about student learning, by permitting faculty to do an in-depth review of a cross-section of student work in relation to a specific outcome.

7. **Don't write a long description of the measure.** It is not necessary to describe the content of an exam or assignment, a rationale for its inclusion in your assessment, or the scoring method you will use. This level of detail is appropriate to record in any program or departmental notes or minutes you will maintain. For your assessment plan, you only need to list the specific measure (items 14-17 on final exam in [course ID, course name], analysis section of senior capstone paper, oral presentation of JPS-301 [course ID, course name] project, dissertation, etc.). You may want to provide a copy of the exam, assignment, or instructor-designed scoring rubric with the assessment report for documentation purposes.

8. **Don't combine multiple measures as one**. Avoid saying, "exams and assignments in JPS-442." You may decide to combine the scores for multiple quizzes or homework assignments, to identify a specific subset of test items that relate to the outcome, or to identify a specific subset of survey items that relate to the item. It is appropriate to do so if it is clearly stated on your assessment plan, and you may want to describe your measure as an aggregate (e.g., mean score) on the quizzes or items used.

9. **Don't use pre-post measures.** Pre- and post-testing can be useful for many purposes, but not for program assessment. Remember that the purpose of assessment is to identify what program graduates should know and be able do, and whether they know it and can do it. Pre- and post-testing only tells you how much *better* they know or can do something on the second test – not how *well* they can do it. For assessment purposes, we aren't interested in gain scores; we are interested in performance relative to a standard we'll set in the Targets section later in this workbook.

   Let's look at two sections of JPS-442 (Policy for the Justice Administrator) at Baker State University. The instructors in both sections agree to administer a pre-and post-test that is a 25-item multiple choice quiz related to policy analysis and policy writing. They believe performance on this quiz will help predict performance on the JPS capstone project and help them identify possible areas of concern. The passing score for the quiz is 20 points (80%). Look at the mean scores on the pre- and post-tests for students in the two sections.

		PRETEST		POSTTEST		
Section	*Poss Pts*	*Mean (Pts)*	*Mean (Pct)*	*Mean (Pts)*	*Mean (Pct)*	*Gain (%)*
001	25	8	32	18	72	40
002	25	17	68	21	84	16

The students in Section 001 had a low mean score on the pre-test, but improved considerably on the post-test. The students in Section 002 had a much higher mean score on the pre-test than the students in Section 001, but they only improved by a few points on the post-test. If the JPS faculty used this quiz as an outcome measure, they might conclude that the large increase observed in Section 001 indicated that those students were progressing very well, while the much smaller increase observed in Section 002 indicated that those students were not. However, if you examine only the mean score for the post-test, you'll see that the mean score for Section 001 fell below the passing score on the quiz, and the mean score for Section 002 was above the passing score.

Since JPS faculty believe this quiz serves as a good predictor of performance on the capstone project, it is probably a good measure to use in their formative assessment efforts – if they consider only the mean score on the post-test and not the difference between the pre- and post- scores.

10. **Use the same measure for more than one outcome, if relevant.** Capstones, projects, internships, and other complex measures will often be related to more than one program outcome. It is fine to use the same measure for as many outcomes as relevant. The JPS capstone project described below is an example of getting "more bang for your assessment buck."

Rubrics are not measures. They are scoring guides to help you evaluate student work.
The measure is the assignment, project, or whatever you assigned students to do.

Before we start writing our measures, review the following measures that would be appropriate for the JPS program outcome: "BS JPS graduates will be able to write appropriate enforcement policies."

- The JPS-442 final exam that required students to evaluate policies and make recommendations
- Alumni surveys that ask program graduates employed as justice administrators how well the program prepared them to write policies.
- Surveys of senior officials who supervise program graduates employed as justice administrators about how well prepared program graduates were to write policies.
- Consider the following example of an assignment that could be used as a final project for an undergraduate capstone course or a graduate-level comprehensive exam question. I will use this as a direct measure for the JPS program.

Policy Development Project JPS 443 – (JPS Senior Capstone)

Choose a current social issue that presents an enforcement issue to law enforcement personnel. Write a policy to address enforcement of that issue for a municipal police department. Your response should include the following:

- A historic summary of the issue you have chosen and an explanation of its development as a social issue as well as a law enforcement issue
- An analysis of the cultural, political, or other societal factors that led to the issue you have chosen and how your policy addresses those factors
- A discussion of the legal aspects surrounding enforcement of the issue you have chosen. You should address any constitutional, statutory, administrative, or agency policies that are related to your issue and discuss how your policy will withstand legal challenges to its implementation.
- A list of the groups of stakeholders who may have strong opinions on the issue or on any enforcement policy that might be implemented. For each stakeholder group, provide a brief description of that group's likely concerns, how they might react if your policy is implemented, and how you would respond to any negative reactions.
- A brief discussion of how you might evaluate the effectiveness of the policy, if implemented.

A complex exam item such as the one above can be a valuable assessment tool. This item would be a very good measure for our JPS policy writing program outcome. It would also provide rich information about student knowledge and skills on other likely program outcomes such as legal knowledge, critical thinking, analytic

writing, and problem solving. Looking back at the sticky notes from the earlier outcomes brainstorming exercise, it's evident that this assignment could also be used to measure these outcomes:

- Knowledge of constitutional law
- Report writing skills
- Knowledge of social factors related to crime
- Knowledge of criminal law
- Knowledge of public administration
- Design programs to address crime problems

The use of a high-quality scoring rubric to evaluate student performance on such an item would yield information about the learning of individual students as well as overall performance of program graduates. The information gained from such items is valuable for assessment purposes because it can inform faculty decisions about continuous improvement to the curriculum.

Review the guidelines beginning on page 28, then write one direct measure and one indirect measure for the outcome you wrote in the previous section. Don't worry about perfection – you'll have an opportunity to review this draft and make revisions.

Review your draft measures to determine whether all the guidelines have been met. In the space provided, indicate which guidelines were – or were not – met in your draft measures.

The example below shows the results of the review of my draft measures, with explanations about each.

Exercise 5 – Example: Measures

Write two direct measures and one indirect measure for your outcome.

Direct: Final exam in JPS 442 (Policy Analysis)

Direct: Policy development project in JPS-443 (Senior Capstone).

Indirect: BSU undergraduate alumni survey items that ask whether students are employed, and how closely related their job is to their undergraduate program at BSU.

Are the Guidelines Met?	Comments
✔ Three measures (two direct, one indirect?)	*Correct. This isn't required, but I used a capstone measure that built on work from the previous course. The capstone assignment is shown on p. 30 and the scoring rubric is on p. 45.*
✔ Near the end of the program	*Correct. This is the capstone.*
✔ No unnecessary extra tests	*Correct.*
✔ No course grades or course completions	*Correct.*
✔ Overall assignment/test grade (may or may not be OK)	*Correct. I only listed the full project, but will be specific in my targets.*
✔ Be specific.	*Correct.*
✔ No long description.	*Correct.*
? No multiple measures	*The indirect measure may appear to be multiple measures, but we ask whether students are currently employed, then filter responses to count only those who respond that they are.*
✔ No pre-post measures.	*Correct.*
✔ Try to get "bang for your buck."	*Correct. This project can be used to measure several outcomes.*

Exercise 5 – Your Turn: Measures

Use the space provided on your exercise sheet to write the first draft of two direct measures and one indirect measure for your outcome. Review your draft measures to determine whether all the guidelines have been met, then use the space provided on your exercise sheet to indicate which guidelines were (or were not) met and make notes about your review.

Exercise 5 – Your Turn: Measures – Revised

Use the space provided on your exercise sheet to write the revised measures. Review your revised measures to determine whether all the guidelines have been met, then use the space provided on your exercise sheet to indicate which guidelines were (or were not) met and make notes about your review.

Exercise 5 – Your Turn: Measures – Final

Use the space provided on your exercise sheet to write the final measures.

TARGETS (HLC 3.A, 4.B)

We've identified outcomes to tell us what program graduates should know and be able to do; we've identified measures to help us determine whether students know and can do those things; and now we will set targets that communicate faculty expectations about how well, overall, students should be able to demonstrate their knowledge and skill on the outcomes. We will set a primary target (and optionally, a secondary target) for each measure to identify the level of performance necessary to satisfy us that ***aggregate*** student performance on the measure indicates that the program outcome has been achieved. These targets are focused on aggregate data about student performance – not individual student performance. These targets are not thresholds for individual student grades, success on individual assignments, in courses, or in programs. The purpose is for program faculty to identify a threshold above which they will be satisfied that, on the whole, students who graduate from the program possess the knowledge or skill specified in the outcome.

At this point, some people worry that they're creating a legal promise that every student will have certain skills when they graduate. That is not what we're doing here. We've already determined that people who graduate from the program should know and be able to do the things specified in the outcomes, but that doesn't guarantee that every graduate will perform at a high level on every measure and every outcome. We are not promising any particular outcome to any individual student.

I can offer you some general guidelines about how to set your targets, but I can't offer you specific guidelines about what is best for your program and your students. I suggest that you set them where they seem reasonable, then review them after your next assessment cycle and think about whether to make adjustments.

This does not mean you should automatically lower targets that you don't meet! As we'll see later in this handbook, not meeting one or more targets does not mean the program is deficient, that teachers are not performing well, or anything negative. It only means that you've identified opportunities to look more closely at patterns of strength or weakness in student performance on an outcome measure and identify ways to improve learning in subsequent assessment cycles. Trust me – there is much more value in identifying areas for improvement, taking action to make improvement, and studying the progress than there is in saying, "Yep, we hit all our targets! Aren't we wonderful?" In fact, if your students are hitting all your targets all the time, I'll ask you to consider whether your students are truly being challenged. Is it time to revise those assignments to call on more from your students?

Targets must be identified prior to the collection and analysis of assessment data. When setting targets, it can be tempting to set unreasonably high "nothing but the best" standards or to set unreasonably low "guaranteed to show success" standards. Both of these practices can be defeating. Over time, it is far more beneficial to a program and its students to set reasonable expectations and work toward meeting them.

Avoid setting a target that says that 100% of students will _____. When tempted to set the threshold at 100%, consider the following scenario. If even a single student in a large program did not meet your expectations on the measure, would you conclude that your program graduates do not possess the knowledge or skill of the outcome? Probably not. Think of a reasonable standard, and set the threshold at that level.

Programs that set targets so low that they are assured of meeting their outcomes present a number of issues. Unreasonably low standards deprive faculty of the opportunity to identify strengths and weaknesses in their students' performance, thus depriving present and future students of the benefits of program improvements that might otherwise occur. The low standards communicate to current and potential students that the faculty have low expectations for them. A program that establishes low expectations for student performance may not push students to perform at their maximum potential, and may not attract the most qualified applicants.

A primary target is written as a statement indicating that *at least* some percentage of students will perform *at or above* a certain level on the measure. For example, you might set a target that says that 80% or more of program majors will earn a rating of three or better (on a four-point scale) on the written communication section of the scoring rubric for a semester project. A separate primary target must be provided for every measure. Secondary targets are optional. A secondary target is written in conjunction with a primary target, and indicates that *no more than* some percentage of students will fall *below* a certain level on the measure.

Secondary targets can be useful for schools with a high percentage of at-risk students, by calling our attention to those students at risk of failing and not completing the program. A later section of this handbook includes a discussion of how to think about your assessment results and how to identify action plans to improve student learning. Secondary targets can be useful at that stage by helping you to identify specific factors related to low performance by some students on a measure.

The use of both primary and secondary targets can provide richer information about student learning that will inform decisions about needed curricular improvements and student success efforts. Some faculty who choose to use both primary and secondary targets think they have to sum to 100% of students. No – just think about what percentage you want to be at or above your primary target, and some small percentage (perhaps 10% to 15%) that you don't want to fall below a very low threshold. In the action planning phase, you will focus on how to improve learning across the board when you do not meet a primary target, but the secondary target will help you focus on those students who may need specialized support.

Here are some examples of pairs of primary (P) and secondary (S) targets:

(P) 80% or more of students will earn 75% or higher on the [subset of outcome-related test items] on the final exam. (*Primary*)
(S) No more than 10% of students will earn below 60% on [subset of outcome-related test items] on the final exam. (*Secondary*)

(P) 75% or more of students will earn a rating of "Meets Expectations" or better on the research paper. (*Primary*)
(S) No more than 5% of students will earn a rating of "Does not Meet Expectations" on the research paper. (*Secondary*)

(P) 90% or more of student papers will be evaluated at a Level 3 or higher on the VALUE rubric for Ethical Reasoning. (*Primary*)
(S) No more than 20% of student papers will be evaluated at a Level 1 on the VALUE rubric for Ethical Reasoning. (*Secondary*)

(P) 85% or more of alumni survey respondents will report that they are currently employed in a field that is related or closely related to their degree program. (*Primary*)
(S) No more than 15% of alumni survey respondents will report that they are not currently employed in a field that is related or closely related to their degree program. (*Secondary*)

(P) 80% or more of exit survey respondents will report that the BS JPS program contributed "Quite a Bit" or "Very Much" to the development of their critical thinking skills. (*Primary*)
(S) No more than 10% of exit survey respondents will report that the BS JPS program contributed "Very Little" or "Not at All" to the development of their critical thinking skills. (*Secondary*)

(P) 75% or more of sampled papers reviewed will be evaluated at a level of "Satisfactory" or higher, using a faculty-developed rubric. (*Primary*)
(S) No more than 10% of sampled papers reviewed will be evaluated at a level of "Needs Improvement" or lower, using a faculty-developed rubric. (*Secondary*)

(P) 85% of program graduates will pass the state licensure exam on the first attempt. (*Primary*)
(S) No more than 5% of program graduates will fail to pass the state licensure exam on the second attempt. (*Secondary*)

(P) 80% of doctoral dissertations will receive a rating of "Very Good" or "Outstanding" for methods, using the Lovitts (2007) rubric for [academic discipline]. (*Primary*)
(S) No more than 10% of doctoral dissertations will receive a rating below "Good." (*Secondary*)

There are several important guidelines to consider when identifying appropriate targets for your outcomes: Other than the general guidelines below, there are no instructions about where targets should be set. It involves using a "best guess" for the first cycle, and studying assessment data to determine whether the original target was appropriate.

1. **The target must be directly related to the measure.** If the measure is an exam, the target will be a threshold of performance on the exam (or the outcome-related subset of exam questions). If the measure is a survey item, the target will be threshold of respondents' ratings on that particular item (or subset of items).

2. **Write targets in this format:** "XX% of students will earn a grade/rating of YY or higher on the [name of exam/project]." Or "XX% of students will [pass/successfully defend] the [licensure exam, dissertation] on the first attempt." or "XX% of respondents will report that [use scale points from survey item].

3. **Course grades and course completion are not appropriate for use with targets.** As with measures, it is important to focus on the specific exam, project, etc., that will be used to measure student learning on the outcome.

4. **No pre-post targets.** See the discussion of pre- and post-tests in the Measures section.

Exercise 6 – Example: Targets

Write the first draft of a primary & secondary target for one direct measure and one indirect measure.

Direct:	***Primary:***	At least 80% of BS JPS students will earn an overall rating of 3 or higher on the policy development project.
	Secondary:	No more than 10% of BS JPS students will earn an overall rating of 2 or lower on the policy development project.
Indirect:	***Primary:***	Eighty percent or more of employed JPS alumni who respond to the alumni survey will report that their job is either "Somewhat Related" or "Very Related" to their undergraduate program at BSU.
	Secondary:	No more than 10% of employed JPS alumni who respond to the alumni survey will report that their job is "Unrelated" to their undergraduate program at BSU.

Are the Guidelines Met?	Comments
✔ Directly related to the measure	
✔ Written in correct format	
✔ No course grades or completions	
✔ No pre-post targets	

Exercise 6 – Your Turn: Targets

Use the space provided on your exercise sheet to write the first draft of a primary & secondary target for one direct measure and one indirect measure. Review your draft targets to determine whether all the guidelines have been met, then use the space provided on your exercise sheet to indicate which guidelines were (or were not) met and make notes about your review.

Exercise 6 – Your Turn: Targets - Revised

Use the space provided on your exercise sheet to write the revised draft of your targets, then review your revised targets to determine whether all the guidelines have been met. Use the space provided on your exercise sheet to indicate which guidelines were (or were not) met and make notes about your review.

Exercise 6 – Your Turn: Targets - Final

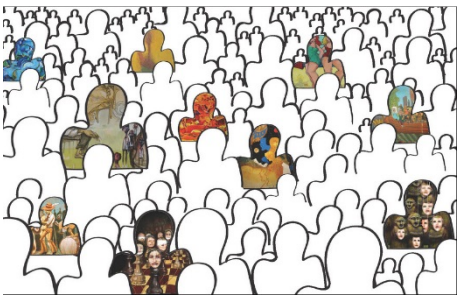
Use the space provided on your exercise sheet to write the final version of your targets.

Targets for graduate theses and dissertations

The master's thesis and doctoral dissertation are excellent measures of student learning, but can present a challenge for faculty writing targets. Many programs will set targets that state that a percentage of students will successfully defend the thesis or dissertation on the first attempt. On the face, this seems to be a suitable approach. However, most graduate faculty support and closely supervise their students' thesis and dissertation work and don't schedule the defense until the work is satisfactory. When this is the case, a target based on success rate of first time defenses is an artificial threshold, and the program has guaranteed that it will meet the outcome. This practice also deprives programs of the opportunity to examine differences in the level of their students' performances and identify opportunities for improvement.

I recommend using the rubrics presented in Lovitts' (2007) work on the assessment of doctoral dissertations. Her work with doctoral faculty at institutions from across the U.S. yielded rubrics for a variety of graduate disciplines that describe the characteristics of the elements of a dissertation (*e.g.,* literature review, methods, analysis, etc.) at four levels: Outstanding, Very Good, Acceptable, Unacceptable. The rubrics can also be used as a model for rubrics to be used for the evaluation of master's theses, for applied or performance projects, or for other disciplines. I encourage programs to use rubrics such as these for a secondary review of theses and dissertations. Such a review is distinct from the traditional defense process, and faculty may or may not choose to share the results of individual reviews with their students. Some programs have found it useful to share rubrics with entering graduate students as a means to inform them at an early stage about expectations regarding the quality of their graduate work. For large programs, it is not necessary to review and evaluate every thesis, dissertation, or project. It is acceptable to review a representative sample of student work. Programs that utilize rubrics to evaluate the quality of theses or dissertations will write a target that indicates that a percentage of students will earn a rating of Acceptable or better on the element that relates directly to the outcome.

SAMPLING (HLC 4.B)



As part of your assessment planning process, you will identify a sampling strategy for each measure. It is important to think about sampling during this early stage of your assessment cycle, because this will form the data collection plan for your assessment activities and will help to ensure that data collection is not left to chance or overlooked until after the academic year has passed.

It is not necessary to select a statistically representative student sample, although you may choose to do so. It is important, however, that you

collect and analyze data from a group of students that is reasonably representative of the group of program majors about whom inferences will be drawn.

Rather than sampling students, faculty may decide to sample course sections. For a large program that offers many sections of a course that has an exam or project that will be used as an assessment measure, it may be preferable to use student work from a sample of those course sections. Remember that the goal is to identify a reasonably representative group of program majors in your data collection. Do not exclude online sections, those taught by adjunct instructors or teaching assistants, evening or weekend sections, etc. You should not focus on honors sections, nor should you systematically exclude them.

As you plan your sampling strategy for each measure, first think about the number of students who will be included in the data collection, and who those students will be. Remember that we are drawing inferences about program graduates only. Do not include students enrolled in a course used for data collection if they are not majors in your program. Their data from other courses will be reflected in the data for their major programs

The number of students who could potentially be included in your data collection may be very large if you include all your major students enrolled in a large class; it may be a smaller number if you included only a sample of those students; or it may be only one or two students if the program is a small one. As you decide whether to include data for all program majors or for a smaller sample, you should also consider the complexity of the data and any analysis that will be required. If your measure is a relatively simple one, such as exam scores, survey responses, or first-time pass rates on a certification exam, sampling would not significantly reduce the amount of time and effort required. If the measure is a more complex one that will require a rubric to yield sub-scores for separate components of the assignment, it may be time consuming to score the work and enter the data for a large number of students; in this case you may choose to include only a reasonably representative sample of program majors. Likewise, if you engage in a secondary evaluation/analysis of theses or dissertations using Lovitts' rubrics (or others developed by program faculty), you may decide to include only a sample of student work in your secondary review.

The program majors included in your sample may or may not be students who will graduate in the current academic year. If the measure is a course exam, for example, the class enrollment may include majors who are at different points in their program completion, and will not necessarily graduate at the same time. This may also be true for a capstone course. Although most students in the capstone will be seniors who are about to graduate, there may be students whose graduation will not occur during the present academic year. Do not exclude those students. Although the purpose of assessment is to provide information about the knowledge and skills of program graduates, we collect the information at different points during those students' education, and may include information from students who are about to graduate as well as those who have one or more semesters of coursework before they complete their studies. You should avoid including data from students early in their programs, however.

I once worked with faculty from a program who had selected what they considered to be their program's culminating experience as a key assessment measure. This was the first time this program had undergone assessment, so they had never gathered these data or looked at it beyond assigning grades. They were surprised to learn that student performance was much lower than expected. In the Reporting section of this handbook, you will learn to review your assessment data and identify factors that likely contributed to the results. As this group began to dig down into the data to understand what had happened, they quickly realized that a large proportion of the students enrolled in the class were only in their second semester of college, yet had been allowed to register for what program faculty considered to be the final course in the program. That explained the unexpectedly low performance on this measure, and the faculty began the process to create prerequisites for that course.

It is unlikely that you will know in advance the number of students for whom you will have data. Although you will determine your sampling strategy at this time, you will describe your sampling and the number of students included when you submit your assessment report at the end of the assessment cycle.

There are several important guidelines to consider when preparing the sampling strategies for data collection on each of your measures:

1. **Before the fact.** The sampling strategy statement reflects a decision about how you will select a reasonably representative group of program majors AND minimally answers the following questions:
    a. How many students will be included in data collection?
    b. Who will those students be?
    c. What timeframe is associated with data collection? This is dictated by when the course is offered during the academic year.
    d. Other unique parameters (e.g., specific course section(s); specific level of students, *e.g.*, junior, senior)?

2. **Program majors only.** The only students who should be included in your sampling are program majors. Do not include students from other programs.

3. **Reasonably representative.** Although a statistically representative sample is not required, you should take appropriate steps to ensure a reasonably representative sample of students and/or course sections.

4. **Written in the correct form.** The sampling strategy should be written in the correct form, as shown in this section. This makes the expectations of program faculty very clear, which will be important when it is time to analyze the assessment data**.**

Here are some examples of sampling strategies:

All program majors enrolled in a specified course during a specified term:

100% of _____ [*program*] majors enrolled in _____ [*course number and name]* in _____ [*term(s)*].

A sample (e.g., 50%) of program majors enrolled in a specified course during a specified term:

____ [*percent]* of ___ [*program*] majors randomly selected from__ [*course number and name]* in ___ [*term(s)*].

All program majors enrolled in all sections of a multiple section course during all three terms:

____% [*percent]* of __ [*program*] majors enrolled in all sections of [*course number and name]* for all terms of academic year 2021-2022.

All program majors enrolled in a sample of course sections of a multi-section course:

100% [*percent]* of _____ [*program*] majors enrolled in a sample of sections of [*course number, name, section]* for all terms (or specific terms) of academic year 2021-2022.

Exercise 7 – Example: Sampling

Write the sampling strategies for each of your measures.

Direct: All program majors enrolled in JPS-443 (Senior Capstone) in Spring 2019. ***Indirect:*** All JPS alumni who respond to the alumni survey and indicate that they are currently employed

Are the Guidelines Met?	Comments
✔ Before the fact.	
✔ Reasonably representative sample.	
✔ Program majors only.	
✔ Written in correct form.	

Exercise 7 – Your Turn: Sampling

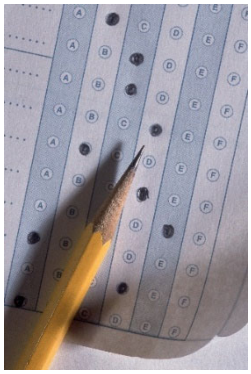
Use the space provided on your exercise sheet to write the sampling strategies for each of your measures. Review your draft sampling strategies to determine whether all the guidelines have been met, then Use the space provided on your exercise sheet to indicate which guidelines were (or were not) met and make notes about your review.

Exercise 7 – Your Turn: Sampling - Final

Use the space provided on your exercise sheet to write the final sampling strategies for each of your measures.

You have now completed each of the steps to create an assessment plan.
Repeat these steps for the remaining outcomes to be assessed this cycle, and your plan will be final.

STEP TWO: COLLECT DATA (*HLC 4.B*)



You have completed the complex and time-consuming work of planning your assessment activities. The outcomes, measures, targets, and sampling strategies you identified were both the data collection plan for this step of your assessment work and the foundation for the interpretation and decision-making steps that follow.

You should decide, in advance, who will be responsible for data collection and storage. Will each person who teaches a class that includes an outcome measure be responsible for creating a spreadsheet of students and exam scores, project grades, or other information? Will a support person coordinate this activity? Who will assemble any survey data that will be used? A variety of methods have been used for collecting and storing assessment data. Common methods include the use of paper tallies of grade book information or the creation of spreadsheets or databases.

Many institutions have begun to adopt commercial software products that serve as data repositories for assessment information. Some products also support archival of student artifacts, e-portfolio functions, automated reminders to instructors of courses used for assessment measures, and other helpful features. Although commercial assessment software can be useful, it isn't necessary in order to maintain an effective assessment system that will support continuous improvement efforts and also meet the expectations of accreditation agencies. Assessment software can also be very expensive, and most products force users into a rigid model created that may not meet your specific needs.

Whatever means of collecting and storing assessment data you decide to use, you should do these two things:

1. To the extent possible, collect and store the actual student artifacts as well as any marked up rubrics and/or scoring data for at least the current cycle, and preferably for several subsequent cycles. Whether written work is submitted electronically or in hard copy, be sure to store the artifacts in a clearly identifiable place accessible by faculty who will analyze and report on the assessment findings and follow-up actions. Sometimes, assessment data consists of paper or electronic logs or checklists that result from faculty observations of students' practical exercises. This is common in fields such as nursing and culinary. These should be collected and stored the same as student writing assignments. Some student work may be a little more difficult to collect and store. Here are some examples, with methods I've seen used:
    a. *Music or dance performances*. These frequently occur in recitals that are evaluated by judges. Some schools video the performances and make them available on public web sites. That is an ideal solution, where possible. If not, if it is possible to video the performances and store them on a department server for subsequent review, that is just as useful as publishing to a public web site. Whether or not it is possible to collect and store videos, you should collect and store each student's detailed ratings by each judge, along with any judges' notes.

b. *Oral presentations*. If feasible, try to video the presentations, then store both the videos and the instructor's detailed ratings (likely from a rubric) for each student. If video is not an option, be sure to collect and store the instructor's ratings and any notes.
c. *Two or three dimensional artifacts, such as art work or architectural models.* Collect and store images of these artifacts. For two-dimensional work, such as drawings, paintings, or architectural renderings or designs, you can use scanned, photographed, or software-generated images of the work. For three-dimensional work, such as sculptures or architectural models, you can use photographs or video of the work that includes student commentary and possibly a feedback conversation with the instructor.

Storing the artifacts as well as any scoring data and notes will allow post hoc scoring and analysis by a team of faculty analyzing assessment data of work already evaluated by course instructors for grading purposes. It will also permit review in subsequent years to study the impact of any follow-up actions that result from assessment findings.

2. When rubrics are used to score student work, be sure to capture and store not just an overall score, but the individual dimension (row) scores as well. When I use rubrics, I setup a simple Excel worksheet that looks like the apple pie example below the rubric. That method lets you report on the scores that are directly related to the outcome (e.g., Program graduates will be able to prepare pastry.) and to analyze patterns in student performance. If you collected only the overall scores, you would be able to determine that students had a mean score of two on the three apple pie dimensions (crust, filling, appearance) and they met (or did not meet) your target, but you would miss the important information that students excelled with their fillings, but consistently produced pies that were poor in appearance. If you did collect the full information, you might decide to have next year's students spend more time working on the visual appearance of their pies.

ANALYTIC RUBRIC FOR APPLE PIE

	Excellent (3)	Good (2)	Poor (2)
Crust	Correctly baked, with no textural problems. Light and flaky, with sufficient structure to support filling. Thickness is uniform and appropriate for filling. Flavor is pleasant and complements flavor of filling.	Neither under baked or burned, but there may be inconsistent doneness. Minimal textural problems. Thickness is appropriate, but inconsistent. No unpleasant flavor.	Under baked or burned Texture is soggy, doughy, tough, or crumbly. Too thin to support filling, or so thick that crust dominates filling. Unpleasant flavor with evidence of salt or poor quality fat.
Filling	Fruit is fully cooked, but has sufficient structure to retain shape when cut. Seasonings complement the fruit and other flavors, but do not dominate the pie. Syrup is thick and helps to retain structure when pie is cut. Flavors are well balanced.	Fruit is fully cooked but not mushy. Fruit slices are correct thickness, but may not be uniform. Choice of seasoning is appropriate, but too much was used. Syrup has good consistency. No flavor dominates, but flavors are not well balanced.	Fruit is under-baked and mushy or overbaked and crunchy. Fruit slices are too thick, too thin, or inconsistent. No seasoning, inappropriate seasoning, or too much seasoning. Too little or too much sweetener. Syrup is thin and runny or thick and gelatinous. Flavors of fruit, sweetener, and seasoning not well balanced.
Appearance	Crust is a beautiful golden brown, with neat and attractive edges that are baked to the same level of doneness as the top crust. Creative use of vents permits steam to escape, with minimal syrup seepage that has caramelized and enhanced the appearance. Additional decorative touches are attractive, but not overdone. Pie holds structure when cut, producing slices that are attractive and appetizing. This is a pie you want to take a picture of before you eat it!	Crust is baked to a golden brown, with inconsistent browning in some areas. Edges are mostly neat, with some ragged or burned areas. Simple vents and decorative touches to top crust. Some syrup seepage may be present, but did not cause significant burned splotches. Pie does not hold structure when cut.	Crust is pale or burned. Edges are ragged or unfinished, or burned. No vents or decorative touches to top crust. Syrup seeping through top crust burned in splotches on top. Pie does not hold structure when cut.

SCORING DATA FOR APPLE PIE ASSIGNMENT

Student	Crust	Filling	Appearance	Overall
Student A	2	3	1	6
Student B	2	3	1	6
Student C	2	3	1	6

When does data collection occur?

Data collection occurs throughout the academic year, but many faculty prefer to focus their data collection activities during the spring term. Your assessment plan points to the specific courses and student experiences that will be used to measure student learning. It is important to determine the points during the year when information from those courses or experiences will be collected from instructors or other responsible persons. Be sure to notify those individuals well in advance so that this important step will not be overlooked.

Be sure to have a plan about what is collected, where it is stored (server? file cabinet?) and how you will ensure privacy of student information.

The most important thing to remember about data collection is to DO IT. If someone fails to collect, store, and record the data related to one or more of the measures in your assessment plan, you will have missed the window for reporting in this assessment cycle. That will impede your efforts to improve student learning, and could raise accreditation concerns.

Remember to collect and store the student artifacts and scoring documents that provide your assessment data.

STEP THREE: ANALYZE AND INTERPRET RESULTS (*HLC 4.B*)

Other than creating program learning outcomes, this is the most important phase of the assessment cycle. The work completed during this phase will help faculty better understand their students' learning and lead to informed efforts to improve learning.

In the data analysis and interpretation step, program faculty will use the assessment data collected during the academic year to determine whether program graduates have the knowledge or skill described in each learning outcome. This step and the action step that follows are the most important parts of program assessment. This is the point where program faculty determine what the assessment data mean, and begin to use that information to improve student learning.

Data should be analyzed and interpreted as soon as possible after collection. Memories of instruction, classroom interaction, and perceptions about student learning may fade between data collection and reporting, limiting the inferences that might be drawn from this information.

When does data analysis and interpretation occur?

As soon as possible after data collection, faculty should begin to analyze and interpret the information collected. This information will be summarized in the assessment report you will submit each year.

The steps below may be used to guide your approach to data analysis.

1. **Review the sampling strategy in your assessment plan to help you identify the data to be used.** Remember to use data from program majors only; do not include non-majors.
2. **Assemble the data to be analyzed.**
3. **Review the measures and targets from your assessment plan.** Working with one measure and one target at a time, calculate the percentage of program majors who met or exceeded the threshold.
4. **Do not exclude students who stopped coming to class, failed to complete the assignment.** Sometimes students simply disappear during the semester without officially withdrawing, or they don't turn in the assignment that is used for assessment. I recommend including anyone who was still enrolled after the deadline to withdraw, regardless of whether they're coming to class or submitted the assignment. I understand that this may lower aggregate results, and one or more of your performance targets may not be achieved. These students should be included in the data, with a score of zero. In your assessment report, you should document any factors you believe contributed to your assessment results. You can use that space to note how many students stopped coming to class or did not submit a final assignment. You should also consider any factors that may have contributed to loosing these students. Are you aware of personal issues they experienced during the semester? Had they begun falling behind on assignments or failed the mid-term exam? Were there issues related to engagement or participation? Are there ways that faculty or the student support staff may be able assist students in the future and prevent these failures?

Doing "good assessment" is not about achieving all the performance targets for learning outcomes; it is about identifying strengths and weaknesses in student performance and taking action to improve student learning in subsequent cycles.

Program faculty, as the experts on the curriculum, are the best suited to judge why student learning on a measure or on the outcome met expectations (or not). The steps below may be used to guide your approach to interpretation of your results.

Targets were met.

What does this tell you about student learning in relation to the outcome? Think about any factors that may have contributed to this finding. Maybe you can identify components of the program or the assessment process that you believe contributed to this result. Consult the curriculum map for the program for information about when – and

how – important content was introduced and reinforced, and the opportunities for students to apply their knowledge. Perhaps there has been a recent program change that you believe helped to improve student learning related to the measure. You might also believe that the assessment measure(s) used were particularly well-suited to the outcome and provided high-quality information. If you used information from your formative assessment to address issues with student learning prior to this point, that may have contributed to the positive results.

Even though the target was met, you might be less than satisfied with student performance, and conclude that one or more of your measures or targets prevented you from identifying that. Maybe the measure used was not the best possible indicator of student knowledge or skill in relation to the outcome. Or maybe you set the target too low and want to revise it in your next assessment plan to "raise the bar" for your students.

You might be thinking that a met target means "good enough." That does not mean your work is done. In the spirit of continuous improvement, start thinking about how to "move the needle" on student learning and plan to set a new target for the next cycle that is slightly higher than the level of performance observed in the current cycle. Just as before, set a new target that is ambitious but attainable, and take necessary steps to meet it. Start thinking ahead to Step Five: Act on Results, where you will identify strategies to improve student learning in the next cycle.

Targets were not met.

What does this tell you about student learning in relation to the outcome? Think about any factors that may have contributed to this finding. Were there components of the program or the assessment process that you believe contributed to this result? Consult the curriculum map for information about when – and how – important content was introduced and reinforced, and where students had opportunities to apply their new knowledge. Are there foundational concepts or theories that students did not adequately apply near the end of their program? If so, at what point in the curriculum could that content have been more strongly emphasized? Was a standardized test used as one of your measures not sufficiently related to your curriculum to adequately measure your students' knowledge? Are the admissions standards for your program too lenient?

Even though the target was not met, you might be pleased with your students' performance on the measures used, and now realize that your target was set at an unrealistically high level. You will be able to revise your target for the next cycle – or keep the target at the original level and take steps to meet it in coming years.

Remember that programs are not penalized for not meeting one or more of their targets. Faculty are, however, responsible for identifying strategies to improve student learning in subsequent cycles. We'll learn how to do that in Step Five: Act on Results of the assessment process. Never respond to an unmet target by lowering the target in the next cycle to ensure that it will be met. Falling short of expectations for student learning provides faculty with the opportunity to gain insights about the curriculum, the students, and other programmatic factors that can be used to drive improvement. Don't miss out on this opportunity!

In the spirit of continuous improvement, start thinking about how to "move the needle" on student learning and plan to set a new target for the next cycle that is slightly higher than the level of performance observed in the current cycle. Just as before, set a new target that is ambitious but attainable, and take necessary steps to meet it. Start thinking ahead to Step Five: Act on Results, where you will identify strategies to improve student learning in the next assessment cycle.

Mixed results.

If your data indicate that a primary or secondary target was met, and the other was not, what is that telling you? You will need to interpret the information available in order to determine whether graduates possess the knowledge or skill of the outcome. Consider the following scenario:

Measure 1 is supervisor evaluations from an internship experience that requires students to apply their skills in a real-world environment. The target states that 80% of students will earn an overall rating of 'Meets Expectations'

or 'Exceeds Expectations' from their supervisors. Your data indicate that 85% of the students received overall ratings of 'Meets Expectations' or 'Exceeds Expectations,' so your expectations were met for this target.

Measure 2 is a graduating student survey that asks how well prepared that students believe they are for employment in the profession. The target states that 85% of respondents will report that they believe they are "Well Prepared" or "Very Well Prepared" for employment in the field. Eighty percent of respondents reported that they felt "Well Prepared" or "Very Well Prepared" for employment in the field, so your expectations were not met for this target.

You might believe that the internship is strongly related to the professional skills needed for entry-level positions in the field, and good supervisor evaluations indicate that the students are well-prepared for employment. If so, you might decide to assign greater weight to the evaluations than to the survey responses and conclude that the outcome was met.

Or, you might know from previous experience that the internship supervisors give high ratings to everyone, even students that you know performed poorly. In this case, you might assign greater weight to the survey responses than to the internship evaluations and conclude that the outcome was not met.

As you review your assessment results and consider possible explanations, you should also think about any planned changes (curriculum, instructional, assessment) that were reported the previous year. Were there changes implemented during the current academic year that may have an impact on student learning? Think about what this may be telling you and discuss whether those changes were implemented. If not, provide an explanation along with any plans for future implementation. For those changes that were implemented, is there any evidence yet about the impact on student learning? It is possible that any impact will not be observable after the first year, so be sure to address any changes that are likely to yield results over the coming years – and your plans to monitor those.

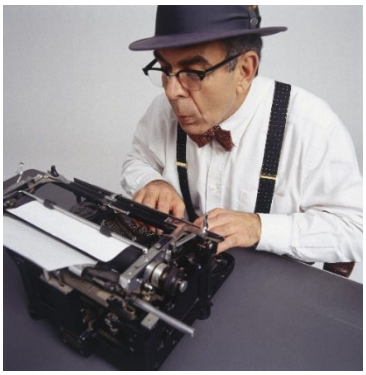
These situations require your professional judgment as faculty. There is no "right" answer. The important thing is for program faculty to interpret the data about student learning and determine whether students have sufficiently demonstrated the knowledge or skill of the outcome. The advice about continuous improvement and moving the needle applies here, as well.

A note on continuous improvement

Accreditation agencies expect us to demonstrate meaningful efforts to achieve continuous improvement in student learning. This does not mean you have to demonstrate dramatic leaps in performance by the next year. Moving the needle with small results from year to year is all you're expected to do. Set ambitious but attainable goals for year-to-year improvement; identify strategies to produce the improvement; and carry out the planned strategies.

No matter what we do or how well we do it, there's always a way to do it better! (Hummingbird, 2012)

STEP FOUR: REPORT (*HLC 4.B*)



It is important that all programs file an assessment report each year. If no data were collected for a program, faculty should provide a reason and document plans for the coming year to ensure that data collection will occur. Most institutions collect assessment reports at the end of the academic year or just prior to the beginning of the new academic year.

A partial assessment report for the B.S. in Justice and Policy Studies program is provided below. Following the partial report, the assignment and scoring rubric (Baker, 2012) used for assessment are provided.

The BS JPS capstone assignment Policy Development Project and rubric used for this assessment are shown on page 49.

2018-2019 Assessment Results

Please use the following sections to report your assessment findings from 2018-2018 and plans to improve student learning in 2019-2020.

Outcome 1:	BS JPS graduates will be able to write appropriate enforcement policies.
Measure 1.1	Policy development project in JPS-443 (Senior Capstone).
Sampling 1.1	All program majors enrolled in JPS-443 (Senior Capstone) in Spring 2019.
Target 1.1 (P)	At least 80% of BS JPS students will earn a mean rating of 3 or higher on the policy development project.
Target 1.1 (S)	No more than 10% of BS JPS students will earn a mean rating of 2 or lower on the policy development project.

How many students were included in the data collection for Measure 1.1? How were they selected? If data collection did not occur, please explain why, and describe plans for data collection in the coming cycle.

32 students were included in the data collection for this major. All program majors (no non-majors) enrolled in the course were selected.

Please provide a brief summary of your analysis of the data for Measure 1.1.

Student papers were scored using a four-point scoring rubric developed by faculty. The assignment and scoring rubric are attached. Overall scores were distributed as follows:

53% of program majors earned an overall score of "3" or higher on the capstone paper.

47% of program majors earned an overall score of "2" or lower on the capstone paper.

Score	N	Pct
4 (Excellent)	7	22
3 (Good)	10	31
2 (Fair)	12	38
1 (Poor)	2	6
0*	1	3

* One student did not submit a paper and received no credit for the capstone paper.

Do your data indicate that Target 1.1(P) and Target 1.1(S) were met? Not met? Not reported this cycle? (If not reported, please indicate the reason.)

Please place an "X" in the appropriate box below.

Target	Met	Not Met	Not Reported this Cycle (Please provide reason)
1.1(P)		x	
1.1 (S)		x	

Please provide a brief summary of the factors you believe contributed to these results.

As shown in the attached rubric, the assignment was scored on four dimensions: Choice of Topic (20%), History (40%), Analysis (40%), and Writing (20%). Although we only reported a distribution of overall scores above, we also analyzed the spreadsheet of dimension scores that were used to compute the overall scores. A review of dimension scores indicated that, overall, students' Analysis scores did not meet faculty expectations, and tended to produce low overall scores for students who received satisfactory scores on the other dimensions. Several students who would have earned an overall score of "3" or even "4" earned scores of "2" because of low scores on the Analysis dimension. The Analysis dimension was used to measure critical thinking abilities within the context of the JPS major, so this finding suggests that graduating seniors do not possess the expected level of critical thinking ability. This is consistent with student performance observed in other coursework throughout the curriculum for JPS majors.

2018-2019 Assessment Results

Please use the following sections to report your assessment findings from 2018-2019 and plans to improve student learning in 2019-2020.

Measure 1.2	BSU undergraduate alumni survey items that ask whether students are employed, and how closely related their job is to their undergraduate program at BSU.
Sampling 1.2	All JPS alumni who respond to the alumni survey and indicate that they are currently employed.

Target 1.2 (P)	Eighty percent or more of employed JPS alumni who respond to the alumni survey will report that their job is either "Somewhat Related" or "Very Related" to their undergraduate program at BSU.
Target 1.2 (S)	No more than 10% of employed JPS alumni who respond to the alumni survey will report that their job is "Unrelated" to their undergraduate program at BSU.

How many students were included in the data collection for Measure 1.2? How were they selected?
If data collection did not occur, please explain why, and describe plans for data collection in the coming cycle.

Fourteen JPS alumni responded to the recent alumni survey.

Please provide a brief summary of your analysis of the data for Measure 1.2.

The table below shows a distribution of alumni responses to the survey item.
78% of respondents reported that are currently employed in a full-time position that is Very Related or Somewhat Related to their JPS major.
21% of respondents reported that they are currently employed that is not related to their JPS majors, or that they are unemployed.

Response	N	Pct
Very Related	3	21
Somewhat Related	8	57
Not Related	2	14
Not Employed	1	7

Do your data indicate that Target 1.2(P) and Target 1.2(S) were met? Not met? Not reported this cycle? (If not reported, please indicate the reason.)
Please place an "X" in the appropriate box below.

Target	Met	Not Met	Not Reported this Cycle (Please provide reason)
1.2(P)	X		
1.2 (S)		X	

Please provide a brief summary of the factors you believe contributed to these results.

Program faculty believe that the major is good preparation for graduates to serve in law enforcement-related fields, and the survey responses seem to support that belief. Nonetheless, 21% are either unemployed or working in a field that is unrelated to the major. No information is available to explain this pattern.

Do the findings on the measures above indicate that Outcome 1 was met? Partially met? Not met? Not reported this cycle? (If not reported, please indicate the reason.) Please place an "X" in the appropriate box below.
Please place an "X" in the appropriate box below.

Met	Partially Met	Not Met	Not Reported this Cycle (Please provide reason)
	X		

Please provide a brief discussion of how the findings on the measures support this conclusion.

Although we indicated above that this outcome was partially met, program faculty agree that this outcome actually was NOT met. We consider the capstone paper the strongest indicator of the level of knowledge and skill that our program graduates possess, and we failed to meet either target for that measure of student learning. The data clearly indicate that student weaknesses in critical thinking, and to some extent, writing contributed to the results.

Save copies of the student work, data files, and other information you used, for future reference.
Do not include student names or other identifying information in assessment reports.
If you store student artifacts in your assessment software system, consider concealing names.

Rubric for: BS JPS Capstone Assignment

Description of Assignment:

Choose a current social issue that presents an enforcement issue to law enforcement. Write a policy to address enforcement for a municipal police department. Include the following: (1) historic summary of issue with explanation of its development as a social issue & law enforcement issue; (2) analysis of cultural, political, or other societal factors that led to issue & how policy addresses those factors; (3) discussion of legal aspects surrounding enforcement of issue. Address any constitutional, statutory, administrative, or agency policies related to issue & discuss how policy will withstand legal challenges; (4) list of who may have strong opinions on the issue or on policy. For each stakeholder group, provide brief description of concerns, how they might react to policy, and how to respond to reactions (5) brief discussion of how to evaluate the effectiveness of the policy.

	Excellent (4 pts)	Good (3 pts)	Fair (2 pts)	Poor (1 pts)	Score
Choice of topic (20%)	Identifies a well-defined topic that focuses on a real issue within the local community. Topic selected is a timely and relevant police issue that remains unresolved and is the source of concern or conflict in the community. Scope of the topic is ambitious, but manageable within time allotted.	Identifies a topic that focuses on a real issue that does not currently impact the local community. Topic selected may have been previously resolved, but project proposes a new solution. Issue has some significance, but is not presently the source of concern or conflict within the community. Scope of the topic is appropriate for time allotted.	Identifies a topic is hypothetical, but plausible. Topic is of minor importance to the local community. The scope of the project is overly narrow and limited for the time allotted, or overly broad and ambitious for time allotted.	Fails to identify a topic, or identifies a topic with no law enforcement significance. The scope of the project is overly narrow and limited for the time allotted. The scope of the project is overly narrow and limited for the time allotted, or overly broad and ambitious for time allotted.	
History (40%)	Provides an in-depth and accurate historic summary. Research relies heavily primary sources. Sources are thoroughly and correctly cited. Tracks historical events in a way that provides a clear foundation for the analysis of development the issue.	Provides a complete and accurate historic summary. Some use of primary sources, but relies mostly on secondary sources. Sources are thoroughly and correctly cited. Tracks historical events in a way that permits the reader to understand development of the issue.	Provides a weak, but accurate historic summary. Relies entirely on secondary sources. Some sources are not cited, and citation quality is inconsistent. Connections between historical events and current issue are not clearly communicated.	Fails to provide a historic summary, or provides a summary that is incomplete or inaccurate. Fails to cite sources. No connections between historical events and current issue.	
Analysis (40%)	Evidence is strong and organized in a way that supports important insights into the issue. May argue for new, but reasonable, conclusions regarding issue.	Evidence is clear and organized in a way that supports reasonable, but not original conclusions about the issue.	Evidence is sparse, and not organized in a way that supports reported conclusions.	Evidence is sparse or non-existent. Reports conclusions but does not support them with evidence.	
Writing (20%)	Consistently adheres to rules & mechanics of writing. Errors are rare and do not interfere with meaning.	Usually adheres to rules & mechanics of writing. Occasional mechanical errors do not interfere with meaning, but indicate that student could benefit from review of certain issues (e.g., spelling, punctuation, grammar) highlighted on the paper.	Inconsistently adheres to rules & mechanics of writing. The meaning remains clear, but numerous errors are distracting to the reader.	Does not adhere to rules & mechanics of writing. Errors interfere with meaning.	
				Overall Score:	

STEP FIVE: ACT ON RESULTS

What is Action Planning? *(HLC 4.B.4, 5.C)*

Action planning is the step in the assessment process where we use assessment results to identify steps we can take to improve student learning. This is the point where continuous improvement, or "closing the loop," is achieved. Now that you have collected data from actual student work, analyzed the data, and determined whether aggregate student performance met the targets you set for each outcome, it is time to use that information to identify actions to improve student learning. For each action you identify, you will specify a plan for implementation and identify any resources that will be needed. There are several important guidelines to consider when writing action plans.

1. **For any measure or outcome that is Partially Met or Not Met, you must submit at least one action plan.** Action plans will target those areas of student performance that did not meet your expectations and identify steps to improve student learning in the next cycle(s).

2. **For any measure or outcome that is Met, you may submit an action plan.** Action plans will target areas of student performance that met targets, and identify steps to sustain and/or improve successful initiatives to improve student learning in the next cycle(s). When you find that you are doing something well, it is important to protect and strengthen those processes. When we achieve our goals, we still want to continuously improve. Central to continuous improvement is the belief that, "no matter what we do, or how well we do it, we can always find a way to do it better (Hummingbird, 2012)." In the language of continuous improvement, we call this "plussing." Throughout the process of assessment, you should ask yourself, "Did I plus it?"

3. **Action plans flow directly from the data, and our analysis of the data**. When developing an action plan, ask yourself what the data suggest you should do next. The connection between the assessment data and the resulting actions must be obvious. Recall that in the assessment planning step, you worked to identify learning outcomes that are connected to long term program goals, program mission, department mission, and institutional mission. Anyone reading your assessment plan should be able to "connect the dots" and see how the learning outcomes support the activities from which they flowed. That same reader should be able to read your assessment report and see an obvious connection between your assessment results and the action plan(s) you develop.

4. **Action plans ignore pre-conceived wishes, needs or priorities.** If your department or program has needs that are not DIRECTLY supported by the analysis of assessment data, those needs will have to be requested through another process, such as the annual program-based budget or program review. Resources for long-term sustainability of programs, such as additional staffing or major equipment, are typically sought through the program review or strategic planning process. **Remember: if the data do not support the request, you ain't gettin' it! (Hummingbird, 2013)**

5. **Some action plans will immediately solve a problem in the next cycle, but others are long term and will put you on the path to improvement.** As you considered the factors that contributed to the assessment results you observed, you likely identified factors that took years to develop, and may take years to correct. Well-defined action plans will provide the short- and long-term strategies you will use to make needed corrections. There is no deadline for achieving expected results, as long as you demonstrate good faith efforts toward continuous improvement.

6. **Action plans are specific.** A common problem with action plans is that they are often mistaken for general recommendations. Your unit may have resource needs, such as personnel or new technology you want. "Updating technological resources" is not an action plan; it is a general recommendation. An action

plan takes this recommendation and breaks it down into measurable milestones, each with targeted deadlines. What are the needed resources? Why are they needed? How will you identify them? How will you identify/select the best product? How much will it cost? Who will do this work? When will they get each step done?

7. **Action plans may or may not require additional resources.** For example, you may have concluded that student performance that did not meet a target may have benefited from additional practice on an important skill. In this case, no additional resources are needed. Your action plan may indicate that you will schedule additional practice sessions next time the course is taught, in which case additional personnel, learning support systems, equipment, or software might be needed. If implementation of an action plan will require additional resources, provide a detailed description of the resources needed, including cost estimates. This information should feed into the program, department, and institutional budget planning process. *(HLC 4.B, 5.B, 5.C)*

8. **Action plans must be tracked over one or more subsequent cycles.** Next year, you will report on the results of any action plans that were implemented as a result of the current assessment process.

When are action plans required?

Measure or Outcome was Met. Action plans are encouraged, but not required. Consider the following scenarios:

- If the level of performance is consistent with what has been observed in previous years, and no significant program changes have occurred, you may conclude that no changes are necessary. It may be time to consider whether to include this outcome in next year's assessment activities. It is acceptable to include one or more outcomes every year, but some programs decide to replace outcomes that are fully met with others they want to study. You may also decide to raise the bar by setting next year's target at a higher level and striving to improve student performance on an important outcome. In this case, you will also identify one or more program or curriculum changes to produce the desired improvement.

- If the level of performance is consistent with what has been observed in previous years, and recent changes to the program or curriculum have occurred, you may conclude that the changes were not effective. It may also be possible that insufficient time has passed for any meaningful changes to occur. Perhaps the changes were made in lower division courses and those students won't reach the data collection point until two or more years in the future. Or, the students included in this year's data collection may have participated in a new initiative that will require more time before the results can been seen. In cases such as these, we recommend that you include this outcome on next year's assessment plan and that you continue to monitor student performance over the next few assessment cycles, reporting each year on your efforts and any observed changes in student performance. The lack of immediate improvement in the next assessment cycle is not seen as a failure. The continued monitoring and reporting of your efforts and results is actually viewed in a positive way by the assessment office and accreditors.

- If the level of performance has improved since last year, and you believe that is the result of recent program or curriculum changes, you may decide to continue the recent changes with no modification. You may also decide to expand the changes, if previous implementation was limited to pilot testing. I recommend that you include this outcome on next year's assessment plan and that you continue to monitor student performance over the next few assessment cycles, reporting each year on your efforts and any observed changes in student performance.

- In each of these cases, it is important to think about how to sustain what has been working, and how to improve upon it.

Measure or Outcome was Not Met or Partially Met. Action plans are required.

- You may have concluded that students are being admitted into the program who are not prepared to perform at the expected level. To remedy this situation, program faculty might consider implementing a rigorous program of remediation and monitoring to help students succeed in the program. Faculty might also consider revising the admissions standards for the program to ensure that you accept students who are likely to succeed.
- You may have concluded that students are weak in a foundational concept that prevents them from performing at the expected level in their upper level coursework. In this case, it can be very helpful to examine the curriculum and identify the specific points at which students were introduced to the troublesome content, where they received reinforcement, and where they had opportunities to apply their learning prior to the assessment measurement point.
- If your faculty do not use curriculum mapping, this would be an ideal time to begin doing so. A curriculum map is an important diagnostic tool when investigating possible causes for low student performance. Program faculty also use curriculum maps to ensure adequate content coverage across the domain. Curriculum mapping also prevents problems that can arise when some instructors are covering important skills or concepts that may go overlooked by others.
- If a review of the curriculum reveals inadequate coverage in the area of concern, program faculty will decide how to resolve the issue. They may decide to update and coordinate course syllabi. They might create additional opportunities for reinforcement and application at multiple points in the curriculum. They may also decide on changes to course sequences or prerequisites.
- Other common strategies used to address low student performance include establishment of a focused tutoring program, creation of a writing clinic, or scheduled study sessions facilitated by course instructors or graduate students.

Based on the assessment results for JPS Outcome 1, several follow-up actions are indicated:

Students' performance on the capstone project is of great concern to program faculty, because it indicates weaknesses in program graduates' critical thinking and writing abilities. Both of these are important skills in law enforcement and public administration, so it is critical to address these shortcomings immediately.

To address the critical thinking deficiencies, program faculty have decided to strengthen the emphasis on critical thinking throughout the curriculum. In order to do so, they will take the following steps:

1. Develop a curriculum map to identify where students presently have opportunities to acquire thinking skills, and where they have opportunities to demonstrate their learning in this area.
2. If the curriculum map indicates inadequate coverage in this area, any necessary course-level changes will be implemented.
3. The JPS program will use the AAC&U Critical Thinking rubric and/or Inquiry and Analysis rubric to evaluate student work throughout the curriculum. In those courses that provide opportunities for students to acquire critical thinking skills or to demonstrate their learning in this area, instructors will use one or both rubrics to evaluate student work and to provide feedback to students.
4. Faculty will develop mechanisms for providing high-quality student feedback, based on John Hattie's work in this area. (See the resources section in this handbook for more information.)

To address the writing deficiencies, program faculty will replicate the curriculum mapping described above, and utilize the AAC&U Written Communication rubric throughout the curriculum to evaluate student work and to provide feedback to students.

Faculty will require students whose coursework does not meet minimum expectations for critical thinking and writing to revise papers and resubmit them for additional review and feedback.

Faculty will also propose the creation of a half-time tutor position. This position will facilitate mandatory study sessions for students whose critical thinking and writing skills do not meet minimum expectations, will review revised and resubmitted assignments, and meet with students to provide one-on-one feedback and reinforcement.

Faculty do not believe that the survey results provided meaningful information about program graduates' abilities on Outcome 1. They will replace this measure in the assessment plan for the next cycle with a survey item that asks how well students believe the program contributed to their critical thinking ability.

Two examples of completed action plans are shown below.

Exercise 8 – Example: Action Plan for Measure 1 (Policy development project)

Action Plan 1.a

Short title	Ensure adequate instructional and assessment coverage for critical thinking
Brief description, with rationale	Students' performance on the capstone project revealed weaknesses in program graduates' critical thinking, which is an important skill in the law enforcement and public administration profession. To address this, program faculty will study where in the curriculum students have opportunities to acquire critical thinking skills, and where they have opportunities to demonstrate their developing skills. This information will be used to identify – and address – any gaps in instruction and to provide students sufficient opportunities to demonstrate their critical thinking skills and receive feedback from faculty
Intended impact on student learning	Students will develop critical thinking skills throughout the curriculum.
Action steps, and person(s) responsible	1. Develop a curriculum map to identify where students presently have opportunities to acquire thinking skills, and where they have opportunities to demonstrate their learning in this area. (JPS faculty working group) 2. If the curriculum map indicates inadequate coverage in this area, any necessary course-level changes will be implemented. (All JPS faculty) 3. Use the AAC&U Critical Thinking rubric and/or Inquiry and Analysis rubric to evaluate student work and provide feedback throughout the curriculum. (All JPS faculty) 4. Faculty will receive training on high-quality student feedback. (All JPS faculty)
Target for completion	End of 2019-2020 academic year.
Resources needed	No additional resources required.

Action Plan 1.b

Short title	Create half-time writing tutor position
Brief description, with rationale	Students' performance on the capstone project revealed weaknesses in program graduates' writing skills, which is an important skill in the law enforcement and public administration profession. To address this, the JPS program proposes to hire a half-time writing tutor who will conduct writing workshops, review revised submissions, and provide feedback to students.
Intended impact on student learning	Students will develop writing skills throughout the curriculum.
Action steps, and person(s) responsible	1. Obtain approval to create new position. (JA department chair.) 2. Work with HR to create position and post announcement. (JA department chair and HR director) 3. Review applications, conduct interviews, appoint person. (JPS search committee) 4. Train new hire. (JA department chair)
Target for completion	Start of Spring 2018 semester
Resources needed	One half-tutor is needed. Base salary = $20,000/year. Benefits = $6,000/year. Although this is a half time position intended to support JPS students specifically, the JPS faculty are willing to share this valuable resource by permitting students from other JA programs to attend the writing workshops. This position can be funded through the JPS law enforcement training grant from the state, so no funds are requested from the Department's general budget.

One of my action plans did not require any additional resources, but the second one required creation of a new position. Be sure to include detailed action plans for all planned follow-up, regardless of whether you are requesting additional resources. Identifying, implementing, and tracking follow-up actions are at the heart of continuous improvement. This process will provide you with important information about student learning on program outcomes, and whether efforts to improve are successful. The second action plan that includes a resource request that includes a request for a new position has detailed justification and cost, and even identifies a grant account that could be used. ***This level of detail is very important.*** Action plans from academic and non-academic assessment, program review, and other processes should drive planning and budget decisions within your program, your unit or division, and the overall institution. Detailed rationale and justification form the persuasive argument necessary to demonstrate that your request should receive approval. I have received many action plans that contain resource requests for "Some more computers and software, plus another full-time person. Total cost: around $10,000 plus whatever staff salaries are." **DON'T DO THIS!** Name the specific hardware and software you're requesting, with cost estimates (not "guesstimates") as close as you can get them. Precise information, with justification that includes likely impact on student learning (for program assessment) or benefit to the unit or institution and any expected savings in time or resources (for other institutional effectiveness processes), increase the likelihood that your request will be approved. It also gives management a dollar value to include in their budget calculations. If you know of a grant or other funding source that would cover the expense, it's helpful to include that information.

Exercise 8 – Your Turn: Action Plan for Measure 1 (Policy development project)
Two possible action plans for Measure 1 are provided above. Use the space provided on your exercise sheet to write one more action plan to address either the critical thinking or writing issues identified in the assessment results.

Action Plan Tracking *(HLC 4.B, 5.C)*

Action plans must be tracked over at least one subsequent assessment cycle. The first section of the assessment reporting template provides space for you to list each action plan created in the previous cycle, and any that are still open from earlier cycles. For each action plan, you will indicate whether it is *In Progress, Complete, On Hold*, or *Cancelled*. Any that are *In Progress* or *On Hold* will be carried over to the next cycle and beyond, until they are complete. Using this process will let you track your implementation of action plans and any improvement that resulted. If a plan did not produce the intended improvement, you will want to consider whether the activity should be continued.

A Simple Model for Learning Improvement: Weigh Pig, Feed Pig, Weigh Pig (Fulcher, Good, Coleman, and Smith, 2014) is an interesting paper that discusses the importance of tracking the results of assessment-related interventions.

An example of an action plan tracking template for the B.S. in JPS program is provided below.

Action Plan Number: 1.a **Title:** Ensure adequate instructional and assessment coverage for critical thinking

Status: **In Progress** x **Complete** _____ **On Hold** _____ **Cancelled** _____

If an action plan is **In Progress** or **Complete**, please provide a brief summary of what was done, and how you have studied the impact on unit performance or student learning to date. What are your ongoing plans to study the impact of this action? If action plan is **On Hold** or **Cancelled**, please provide a rationale for this decision. Please discuss future plans, if any.

Over the past academic year, JPS faculty developed a comprehensive JPS curriculum map. That process revealed that faculty had not emphasized critical thinking within JPS major courses, and realized that they had assumed this skill would be taught and assessed fully within the core curriculum. They now realize it must be developed within the JPS major courses to ensure that their students acquire the kind of analytic skills they will need to succeed professionally or in graduate/law school. As a result, all JPS courses have added a critical thinking course objective to their syllabi for implementation in the next academic year. That objective will be assessed in every course. Faculty are continuing to work on this, and will identify increasingly complex instruction and assessment measures around critical thinking throughout the JPS curriculum. Because this work is beginning in the

lower division courses and expanding into upper division courses as students matriculate, faculty will track student performance on this outcome, but anticipate that it will take at least three years to fully realize the expected improvement.

Faculty are also reviewing and revising the Critical Thinking and Inquiry & Analysis VALUE rubrics to meet JPS needs. A common rubric will be used throughout the curriculum, to support tracking of students' development on this important skill. They plan to pilot a draft version of the rubric in a small number of course sections during the next spring semester.

Faculty have identified several good resources on how to give quality feedback to students, and plan to organize a series of faculty led readings and roundtables to help each other develop their feedback knowledge and skills.

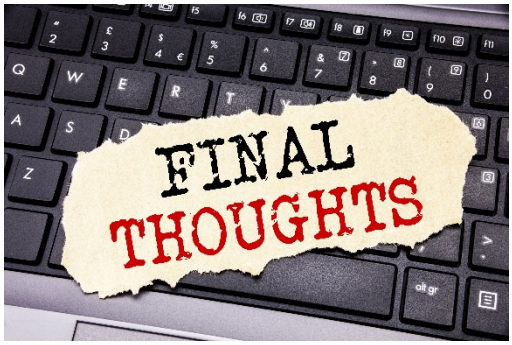
STEP ONE: PLAN ASSESSMENT *(HLC 4.B)*

The last step of the assessment cycle is also the first step in the new assessment cycle. The annual assessment report will include an updated assessment plan with the outcomes to be measured in the new cycle, and the measures, targets, and sampling strategies to be used. Updating your assessment plan represents the completion of an assessment cycle and the beginning of a new one, reminding us of the cyclical nature of assessment. The updated assessment plan may include the same outcomes used during the previous cycle, or it may include new ones. The information in *Step One: Plan Assessment* and *Step Five: Act on Results* of this *Handbook* should guide your choice of outcomes for the new cycle.

When planning assessment for the new cycle – and possibly for cycles two or more years in the future – it may be necessary to think about action plans in progress that may not produce immediate results. Consider the case of a capstone project used to measure student learning on one or more outcomes. Program faculty may identify some weakness in students' knowledge or skill on one of the outcomes, and implement instructional strategies in a foundation course where the concept is first introduced. If program majors typically take that foundation course in their freshman or sophomore years, it may be two or more years until students who experienced the reinforcement complete their capstone projects and demonstrate the anticipated improvement.

Don't let results that are staggered across multiple years become confusing. The action plan tracking section of the annual assessment report will help you to keep up with these.

FINAL THOUGHTS



This section provides suggestions about strategies to strengthen your assessment work now, and in the future as you work to

Rubrics *(HLC 4.B)*

Rubrics are not always the best way to score student work, but in many cases a **well-designed and properly used rubric** can provide rich information about students' performance to both the instructor and the student. Proper rubric design and use requires considerable planning and work. This can be time consuming, but a good rubric can probably be used and/or modified for years to come. The resources section of this workbook includes two works that the author uses to teach faculty good rubric design and use. Keep these things in mind when using rubrics, whether for routine scoring or for assessment purposes.

Identify the specific dimension(s) related to the assessment outcome. When using a rubric for scoring student work for assessment purposes, think about whether the entire rubric or only a subset of dimensions (rows) of the rubric. Complex rubrics, such as the example JPS rubric included in this workbook, the VALUE rubrics, and the Lovitts (2007) rubrics likely include rubrics that are not directly related to the outcome. If that is the case, your target should state something like, "XX or more of students will earn a rating of YY or higher on the ZZ dimension of the [name of rubric]."

Calculating percentage scores from rubric scores. Instructors frequently want to convert a rubric dimension or overall score to a percentage. This puts the evaluation back onto a scale that anyone will recognize, and is convenient for tracking course assignment grades across the semester to aid in the calculation of a final course grade. It is tempting to take the sum of the dimension scores, then calculate the percentage of the maximum possible overall score. Let's review some data from the Apple Pie example we used earlier. The assignment was scored using a rubric with three dimensions (Crust, Filling, Appearance) and a three-point scale (Excellent-3, Good-2, Poor-1). In this case, the maximum score possible on the assignment was nine points.

Let's calculate the percentage of nine points for students A, B, and C in the table below. Student A earned an overall score of eight points, or 89%. Most instructors would consider that equivalent to a grade of "B." Student A was only one point short of a perfect score, so maybe a "B" seems low?

Next, consider the percentage for Student B, who earned a total score of seven points (78%), or equivalent to a grade of "C." Student B earned ratings of either Good or Excellent on all dimensions of the rubric, so a "C" also seems low.

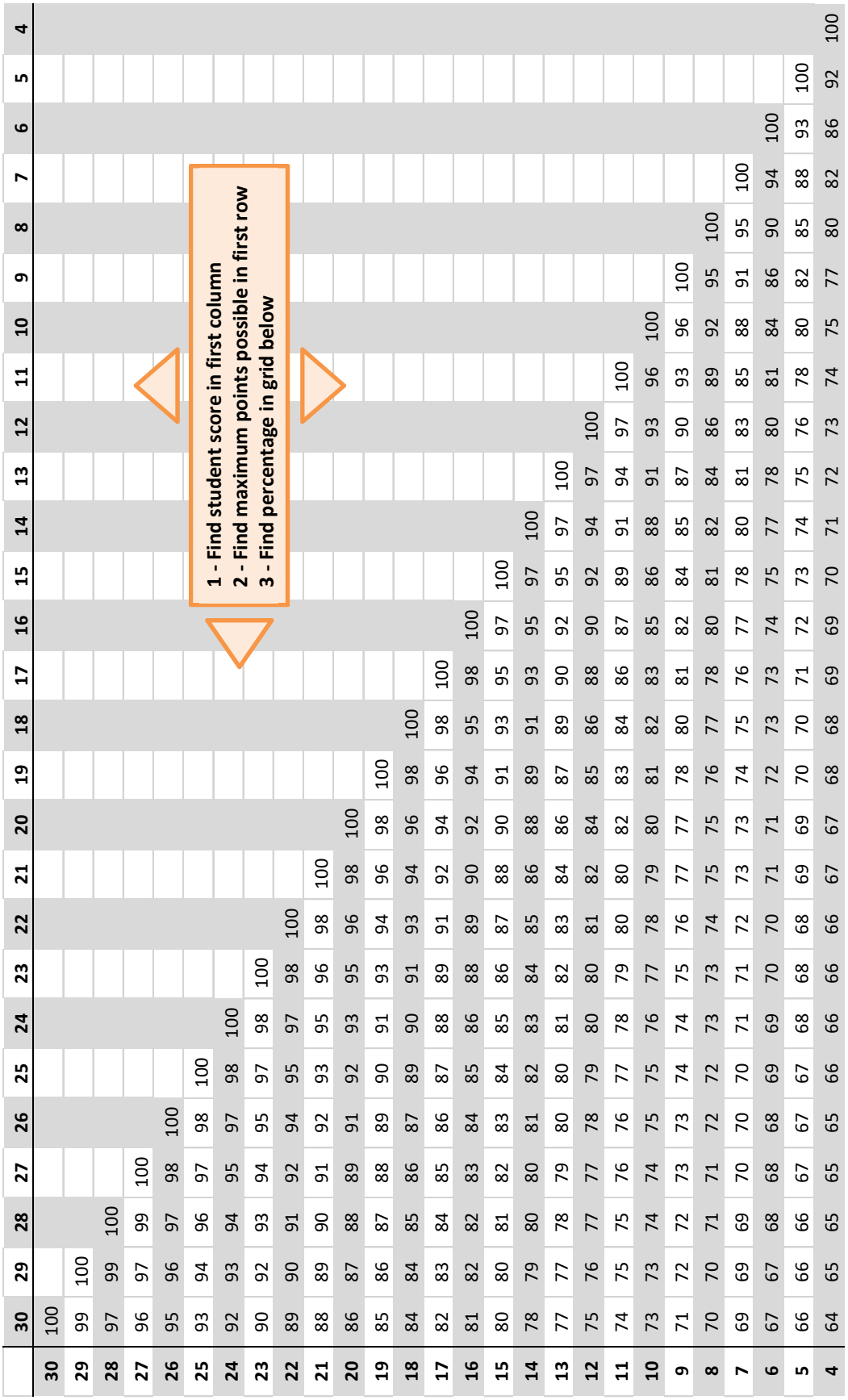
And finally, Student C earned a total score of six points (67%), or equivalent to a grade of "D." Student B earned ratings of Good on all dimensions of the rubric, so a "D" seems very low!

What is wrong here? This is a common mistake that stems from a misunderstanding of the two scales represented by our rubric (1 through 3) and a percentage scale (0 through 100). It stems from the fact that we're trying to convert one scale to another with which it does not have a linear relationship. The debate about how to resolve the problem rages on among mathematicians. Many have proposed solutions that involve computations far too complex for everyday use. One popular method, and one that has been adopted by some state testing officials, is to compute the mathematically correct percentages and load them in lookup tables that are easy to use.

Such a lookup table is provided on the next page. The table was used to find converted percent scores for Students A, B, and C on their apple pie assignments. The converted percent scores show that Students A and B have now earned scores that are equivalent to a grade of "A" and Student C has earned a score that is equivalent to a grade of "B." These comparisons to grade equivalents are helpful in demonstrating the considerable difference between a standard percent and a converted percent. The converted percent simply makes more sense. *Note: the conversion formula used for this table assumes that the minimum passing score on an assignment is 60%. The online conversion tool found at https://roobrix.com/ lets the user set the minimum passing score.*

SCORING DATA FOR APPLE PIE ASSIGNMENT

Student	Crust	Filling	Appearance	Sum	Percent	Converted Percent
Student A	3	3	2	8	89	95
Student B	2	2	3	7	78	91
Student C	2	2	2	6	67	86



Assessment 200, 300, and beyond *(HLC 4.B, 5.C)*

This workbook is titled Assessment 101 for a reason; it is intended as a basic introduction to assessment practice. As your institution incorporates these processes into its assessment practice, you should begin to think beyond the 101 level and identify more advanced ways to strengthen assessment knowledge and practice on your campus. A partial list of ideas for you to consider is provided below.

Institutional Effectiveness

Full participation, consistently across years, in:
- strategic planning
- assessment (academic, non-academic, gen ed, co-curricular)
- program review (academic, non-academic)

Integration of institutional processes across areas & levels
- strategic planning
- assessment (academic, non-academic, gen ed, co-curricular)
- program review (academic, non-academic)

Results used to drive budget and planning at all levels:
- institution
- school
- department
- program
- executive and administrative offices
- support units

Communication Plan
- internal (faculty, staff, administrators, students)
- external (web, recruitment materials, advisory groups, stakeholders)

Alignment and publication of outcomes
- curriculum maps (program, general education, course
- syllabi include course, program, gen ed outcomes

Documentation
- policies
- procedures
- handbooks
- templates
- data collection, analysis, reporting, follow-up
- evidence of improved student learning
- tracking of student success (retention, persistence, completion)

Periodic review/update
- assessment system
- processes
- plans

Personnel

Assessment director, coordinator, assessment staff
Faculty, administrators, staff, & students involved

Data

Use of data in decision making is evident
Dashboards
Data methods allow for trending, comparisons, etc.
Benchmarking

Institutional Commitment and Support

College leaders reward and recognize assessment work
Governing Board actions support importance and role of assessment
Financial Resources
- line item budget
- training support
- subscriptions/memberships

National Institute for Learning Outcomes Assessment (NILOA)

The Excellence in Assessment (EIA) program recognizes institutions for their efforts in intentional integration of campus-level learning outcomes assessment. The EIA designations focus on campus processes and uses of assessment outcomes, rather than on student performance or accomplishment.

https://www.learningoutcomesassessment.org/eia/

And finally, remember this:
Continuous improvement is better than delayed perfection (Mark Twain)

RESOURCES

The following resources are available to provide additional information in several areas related to assessment.

Adjunct Instructors

Alexander, Blotevogel, Carney, Conner, Dennis, Isaacson, Louden, Martin, Philpot, Reeves, & Wood. (2017). *Assessment Handbook for Columbia College Adjunct Faculty* (2017) Retrieved from https://www.ccis.edu/~/media/Files/Academic-Assessment/Adjunct_Faculty-Handbook_Final-20170831.pdf

Felix, A. *A College Where Adjuncts Are Not Just Add-ons.* Retrieved from *http://www.learningoutcomesassessment.org/documents/Assessment_in_Practice_Rio_Salado.pdf*

Stenerson, J.; Blanchard, L.; Fassiotto, M.; Hernandez, J.; & Muth, A. (2010, Summer). *The Role of Adjuncts in the Professoriate.* Retrieved from https://www.aacu.org/publications-research/periodicals/role-adjuncts-professoriate

Assessment of Graduate Programs

Making the Implicit Explicit: Creating Performance Expectations for the Dissertation (Lovitts). Good resources for assessment in doctoral programs. Includes rubrics for several disciplines. Adaptable to master's theses.
https://sty.presswarehouse.com/books/BookDetail.aspx?productID=128088
https://www.amazon.com/Making-Implicit-Explicit-Expectations-Dissertation/dp/1579221815

Benchmarking

National Community College Benchmark Project (NCCBP). More than 150 benchmarks for 400+ community colleges nationwide.
https://www.nccbp.org/

Curriculum Mapping

Garden City Community College (in Kansas) has adopted a curriculum mapping process that includes a map of each degree or certificate program, and a map of each course within the program.
https://www.gcccks.edu/academics/pdf/Academic%20Catalog%20(2018-20)%20091118b.pdf

Feedback

Over the last 25 years, John Hattie has conducted more than 1,400 meta-analyses of 80,000 studies that included more than 300 million students, examining the relative effect sizes of more than 250 influences in the home, in the school, in the classroom, and within students themselves and their impact on student achievement. He has repeatedly found that teacher to student feedback, when properly given, is among the most powerful strategies within the teacher's control. His work is focused on K-12 classrooms, but much of it is relevant to post-secondary education. A few examples of his work are provided below, but many more are available on the internet.

Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement (Hattie, 2009). This is his 2009 version, with a rank-ordered list of 138 effect sizes that was current at that time.
ISBN-13: 978-0415476188
ISBN-10: 0415476186
Amazon price: $44.57

The 2018 update rank orders the effect sizes of 252 influences. The interactive site contains tables that can be sorted and filtered in several ways. https://visible-learning.org/hattie-ranking-influences-effect-sizes-learning-achievement/

Visible Learning: Feedback (Hattie & Clarke, 2018). This is his recently-published book that deals specifically with feedback and his more recent research on effective feedback.
ISBN-13: 978-1138599895
ISBN-10: 9781138599895
Amazon price: $29.40

Getting Feedback Right: a Q&A with John Hattie. This is a June 2018 interview of John in *Education Week*.
https://www.edweek.org/ew/articles/2018/06/20/getting-feedback-right-a-qa-with-john.html

General Education

Association of American Colleges & Universities (AAC&U). AAC&U has a great deal of information about liberal education and general education on their web site. They also host conferences and intensive summer institutes, including one for general education,
https://www.aacu.org/

Mission Statements

Creating an Academic Program Mission Statement (Virginia Tech)
https://aie.vt.edu/content/dam/aie_vt_edu/institutional-effectiveness/academic-program-assessment/office-handout-series_creating-a-mission-statement.pdf

RESOURCES, cont.

Rubrics

Assessing Performance: Designing, Scoring, and Validating Performance Tasks (Johnson, Penny, & Gordon)
ISBN-13: 978-1593859886 ISBN-10: 1593859880
Amazon Price: $34.62
Amazon sometimes sells out of this book. It is also available from the publisher at: https://www.guilford.com/books/Assessing-Performance/Johnson-Penny-Gordon/9781593859886
This is a comprehensive guide to performance assessment, including designing tasks and rubrics, training raters, addressing validity and reliability. Belita Gordon is perhaps the nation's leading expert on rubrics and scoring, having led many major scoring operations for high-stakes and low-stakes assessment activities. Her co-authors are skilled psychometricians, well-versed in the field of performance assessment.

Rubrics 101: Five Steps to Effective Rubric Design and Use (Baker, W). Handbook for writing and using rubrics to evaluate performance. Available from http://www.counciloakassessment.com/.

Valid Assessment of Learning in Undergraduate Education (VALUE) rubrics. Set of 16 rubrics from AAC&U for evaluating student work. Can be modified to fit individual need. Free PDF download. https://www.aacu.org/value-rubrics

Hostos Community College has a good set of general education rubrics (and other assessment information) on their web site at: *http://www.hostos.cuny.edu/Administrative-Offices/Office-of-the-President/Institutional-Research/Assessment-of-Learning-Outcomes/Assessment-of-Student-Learning-Outcomes*

Student Tracking

National Student Clearinghouse. More than 3,600 public and private colleges and universities participate, with data for more than 98% of all students nationwide (current and historic). Useful for degree verification, tracking of former students, and more.
http://www.studentclearinghouse.org/

Surveys

Noel-Levitz. Student Satisfaction Inventory (SSI), Non-cognitive assessment, Student Retention, and others.
https://www.ruffalonl.com

NSSE, CCSSE, FSSE. National Survey of Student Engagement, Community College Survey of Student Engagement, Faculty Survey of Student Engagement. Nationally normed, measure student engagement from student and faculty perspectives.
https://nsse.indiana.edu/
http://www.ccsse.org/
https://nsse.indiana.edu/fsse/

Test Construction

Constructing Written Test Questions for the Basic and Clinical Sciences. Free PDF download from the National Board of Medical Examiners (NBME). Although written specifically for medical school faculty, it is one of the best information resources about how to write good test items for any discipline. To download, go to the web site, and find it in the Lessons section. You will have to register with your information and create a username/password, then click through the options to "purchase" it. It will bring you to a credit card payment page, but show the amount due as zero and let you click past that page without entering a credit card. You can then download the manual.
https://www.mynbme.org/s/login/

Miscellaneous Assessment Resources

Council Oak Assessment. The author of this handbook maintains a web site of useful assessment and accreditation information.
http://www.CouncilOakAssessment.com/

DQP: Degree Qualifications Profile. Lumina Foundation project that defines what students should know and be able to do at the associate, bachelor's, and master's levels. Information, free PDF downloads and other publications available on their web site.
http://degreeprofile.org/.

Excellence in Assessment (EIA) Designation. A NILOA initiative to recognize institutions with outstanding assessment practices.
http://www.learningoutcomesassessment.org/eiadesignation.html

National Institute for Learning Outcomes Assessment (NILOA). An initiative led by key assessment scholars to disseminate information about good assessment practice. They maintain a web site that contains a variety of good information and have a monthly e-mail newsletter with current issues in assessment.
http://www.learningoutcomesassessment.org/index.html

REFERENCES

Adelman, C. (2015) *To Imagine a Verb: The Language and Syntax of Learning Outcomes Statements*. National Institute for Learning Outcomes Assessment (NILOA). Retrieved from http://www.learningoutcomesassessment.org/documents/OccasionalPaper24.pdf.

Association of American Colleges and Universities (2010). *VALUE: Valid Assessment of Learning in Undergraduate Education*. Retrieved June 15, 2015, from AAC&U Programs: VALUE Rubrics: https://www.aacu.org/value-rubrics

Baker, W. (2012). *Rubrics 101: Five Steps to Effective Rubric Design and Use.* http://www.counciloakassessment.com/

Barnes, (2011). *bangs head against wall | Dreaming Awake*
https://ebarnes23.wordpress.com/2011/12/31/bangs-head-against-wall/
Licensed for non-commercial reuse

Fulcher, K. H., Good, M. R., Coleman, C. M., & Smith, K. L. (2014, December). *A Simple Model for Learning Improvement: Weigh Pig, Feed Pig, Weigh Pig.* (Occasional Paper No. 23). Urbana, Il: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment.

Lovitts, B. E. (2007). *Making the Implicit Explicit: Creating Performance Expectations for the Dissertation*. Sterling, VA: Stylus.

Lumina Foundation (2017). DQP: Degree Qualifications Profile. Retrieved from http://degreeprofile.org/.

Unknown, (1992, September). *9 Colleges Receive Grants to Study Total Quality Management*. The Chronicle of Higher Education. Retrieved from http://chronicle.com/article/9-Colleges-Receive-Grants-t/70943/.

Appendix I: Assessment 101 Exercises

Date: _____ Your Name: _____ Program: _____

MISSION

Please enter your institutional mission statement below, or refer to a copy you brought with you.

Please enter your department mission statement below, or refer to a copy you brought with you.

Please enter your program mission statement below.

EXERCISE 1 – YOUR TURN: REVIEW YOUR MISSION STATEMENTS (p. 10)

Does your department mission support the institutional mission?

Does your program mission support the department mission?

GOALS

EXERCISE 2 – YOUR TURN: WRITE PROGRAM GOALS (p. 11)

Draft two or three program goals.

Review and revise the goals above, as needed.

Choose one program goal from the list above that you will use for today's work.

OUTCOMES METHOD 1: TRADITIONAL

EXERCISE 3 – YOUR TURN: OUTCOMES (p. 17)

Enter your Level A (sticky note cluster) outcomes below.

Enter your Level B and Level C outcomes below.

Enter your focused Level C outcome below.

Write the first draft of your outcome statement below, then use the checklist below to review it.

Are the Guidelines Met?	Comments
☐ Support one or more long-term goals	
☐ Observable and measurable	
☐ Focus on knowledge & skills, not inputs or processes	
☐ Focus on knowledge and skills, not attitudes, beliefs, or affective measures	
☐ Consider gen ed, if relevant, within context of discipline	
☐ Consider external accreditation, if any	
☐ No multiple outcomes	
☐ Short and concise	
☐ Graduates should be able to _____	
☐ Seek assistance if an important outcome seems too vague or difficult to measure.	

Write your revised outcome statement below and use the checklist above to review it.

Write your final outcome statement below.

OUTCOMES METHOD 2: ALTERNATIVE

EXERCISE 4 – YOUR TURN: DQP OUTCOME (p. 25)

Write the name of a DQP outcome below.

Why do you believe this outcome is important to your program?

MEASURES

EXERCISE 5 – YOUR TURN: MEASURES (p. 31)

Write two direct measures and one indirect measure for your outcome, then use the checklist below to review them.

Are the Guidelines Met?	Comments
Three measures (two direct, one indirect?)	
Near the end of the program	
No unnecessary extra tests	
No course grades or course completions	
Overall assignment/test grade (may or may not be OK)	
Be specific.	
No long description.	
No multiple measures	
No pre-post measures.	
Try to get "bang for your buck."	

Write your revised measures, then use the checklist above to review them.

Write your final measures.

TARGETS

EXERCISE 6 – YOUR TURN: TARGETS (p. 34)

Write the first draft of a primary & secondary target for one direct measure and one indirect measure, use the checklist below to review them.

Are the Guidelines Met?	Comments
Directly related to the measure	
Written in correct format	
No course grades or completions	
No pre-post targets	

Write the revised draft of your targets, then use the checklist above to review them.

Write your final targets.

SAMPLING

EXERCISE 7 – YOUR TURN: SAMPLING (p. 37)

Write the sampling strategies for each of your measures, then use the checklist below to review them.

Are the Guidelines Met?	Comments
Before the fact.	
Reasonably representative sample.	
Program majors only.	
Written in correct form.	

Write the final sampling strategies for each of your measures.

ACTION PLANNING

EXERCISE 8 – YOUR TURN: ACTION PLAN FOR MEASURE 1 (POLICY DEVELOPMENT PROJECT) (p. 50)
Write one more action plan to address either the critical thinking or writing issues identified in the assessment results.

Action Plan 1.a

Short title	
Brief description, with rationale	
Intended impact on student learning	
Action steps, and person(s) responsible	
Target for completion	
Resources needed	

STAKEHOLDERS

Who are your stakeholders? Common stakeholders for this process include advisory groups that support the program, employers, and the faculty from transfer or graduate/professional programs that accept your students. List any groups you consulted below.

Appendix II: Assessment 101 Plan Template

ASSESSMENT 101: ACADEMIC ASSESSMENT PLAN

Date	Your Name	Program

MISSION

Please enter your institutional mission statement below.

Please enter your department mission statement below.

Please enter your program mission statement below.

Does your department mission support the institutional mission?

Does your program mission support the department mission?

GOALS

Goal 1

Goal 2

OUTCOMES

Outcome 1

Why do you believe this outcome is important to your program? ***(DQP only***)

Measure 1.1 (Direct)

Target 1.1 (P)

Target 1.1 (S)

Sampling 1.1

Measure 1.2 (Direct)

Target 1.2 (P)

Target 1.2 (S)

Sampling 1.2

Measure 1.3 (Indirect)

Target 1.3 (P)

Target 1.3 (S)

Sampling 1.3

Outcome 2

Why do you believe this outcome is important to your program? ***(DQP only***)

Measure 2.1 (Direct)

Target 2.1 (P)

Target 2.1 (S)

Sampling 2.1

Measure 2.2 (Direct)

Target 2.2 (P)

Target 2.2 (S)

Sampling 2.2

Measure 2.3 (Indirect)

Target 2.3 (P)

Target 2.3 (S)

Sampling 2.3

Department Chair Review. I have reviewed this plan and agree with the findings and action plans.

Signature _____ Date _____

Assessment Director Review. I have reviewed this plan and agree that it meets assessment guidelines.

Signature _____ Date _____

Appendix III: Assessment 101 Report Template

ASSESSMENT 101: ACADEMIC ASSESSMENT REPORT

2020-2021 Academic Year

Date | Your Name | Program

2019-2010 Action Plan Follow up. Please refer to your 2017-2018 assessment report and provide a status update for each action plan in that report. Three templates are provided below. Copy and paste the template if you submitted more than three actions plans last cycle.

Action Plan Number: **Title:**

Status: **In Progress** **Complete** **On Hold** **Cancelled**

If action plan is **In Progress** or **Complete**, please provide a brief summary of what was done, and how you have studied the impact on student learning to day. What ongoing plans do you have to study the impact on student learning that will occur as a result of this action? If action plan is **On Hold** or **Cancelled**, please provide a rationale for this decision. Please discuss future plans, if any.

Action Plan Number: **Title:**

Status: **In Progress** **Complete** **On Hold** **Cancelled**

If action plan is **In Progress** or **Complete**, please provide a brief summary of what was done, and how you have studied the impact on student learning to day. What ongoing plans do you have to study the impact on student learning that will occur as a result of this action? If action plan is **On Hold** or **Cancelled**, please provide a rationale for this decision. Please discuss future plans, if any.

Action Plan Number: **Title:**

Status: **In Progress** **Complete** **On Hold** **Cancelled**

If action plan is **In Progress** or **Complete**, please provide a brief summary of what was done, and how you have studied the impact on student learning to day. What ongoing plans do you have to study the impact on student learning that will occur as a result of this action? If action plan is **On Hold** or **Cancelled**, please provide a rationale for this decision. Please discuss future plans, if any.

2020-2021 ASSESSMENT REFLECTION

Please describe the impact your assessment activity has had on student learning in your program.

Please describe the impact your assessment activity has had on your teaching.

Department Chair Review. I have reviewed this report and agree with the findings and action plans.

Signature ____________________ Date __________

Assessment Director Review. I have reviewed this report and agree that it meets assessment guidelines.

Signature ____________________ Date __________

2020-2021 Assessment Results

Outcome 1

Measure 1.1 (Direct)

Target 1.1 (P)

Target 1.1 (S)

Sampling 1.1

How many students were included in the data collection for Measure 1.1? How were they selected? (pp. 35, pp. 42-43)
If data collection did not occur, please explain why, and describe plans for data collection in the coming cycle.

Please provide a brief summary of your analysis of the data for Measure 1.1. (pp. 42)

Do your data indicate that Target 1.1 was met? Partially met? Not met? Not reported this cycle? (If not reported, please indicate the reason.)

Please place an "X" in the appropriate box below.

Target	Met	Partially Met	Not Met	Not Reported this Cycle (Please provide reason)
1.1				

Please provide a brief summary of the factors you believe contributed to these results. (pp. 43)

Measure 1.1 Action Planning. If the targets for this measure were ***Not Met*** or ***Partially Met***, please provide one or more action plans that indicate how you will improve student learning on this outcome. If the targets were ***Met***, you may provide one or more action plans, if you choose. One blank action plan template is provided below. Copy and paste the template into this section for additional action plans, if needed. (pp. 45-48)

Action Plan 1.1 (Short Title)

Please describe what you plan to do. Include a brief rationale, focused on student learning.

What is the intended impact on student learning?

Action Steps and Person(s)/Group responsible (add rows, if needed)

No.	Action Step	Person(s)/Group Responsible
1		
2		
3		
4		

Expected start date (MM/DD/YY) _____ **Expected completion date (MM/DD/YY)** _____

Are additional resources needed to complete this? Be specific. For resources that include a budget request, please provide cost breakdown and total cost.

Measure 1.2 (Direct)

Target 1.2 (P)

Target 1.2 (S)

Sampling 1.2

How many students were included in the data collection for Measure 1.2? How were they selected? (pp. 35, pp. 42-43)
If data collection did not occur, please explain why, and describe plans for data collection in the coming cycle.

Please provide a brief summary of your analysis of the data for Measure 1.2. (pp. 42)

Do your data indicate that Target 1.2 was met? Partially met? Not met? Not reported this cycle? (If not reported, please indicate the reason.)

Please place an "X" in the appropriate box below.

Target	Met	Partially Met	Not Met	Not Reported this Cycle (Please provide reason)
1.2				

Please provide a brief summary of the factors you believe contributed to these results. (pp. 43)

Measure 1.2 Action Planning. If the targets for this measure were ***Not Met*** or ***Partially Met***, please provide one or more action plans that indicate how you will improve student learning on this outcome. If the targets were ***Met***, you may provide one or more action plans, if you choose. One blank action plan template is provided below. Copy and paste the template into this section for additional action plans, if needed. (pp. 45-48)

Action Plan 1.2 (Short Title)

Please describe what you plan to do. Include a brief rationale, focused on student learning.

What is the intended impact on student learning?

Action Steps and Person(s)/Group responsible (add rows, if needed)

No.	Action Step	Person(s)/Group Responsible
1		
2		
3		
4		

Expected start date (MM/DD/YY) _____ **Expected completion date (MM/DD/YY)** _____

Are additional resources needed to complete this? Be specific. For resources that include a budget request, please provide cost breakdown and total cost.

Measure 1.3 (Indirect)

Target 1.3 (P)

Target 1.3 (S)

Sampling 1.3

How many students were included in the data collection for Measure 1.3? How were they selected? (pp. 35, pp. 42-43)
If data collection did not occur, please explain why, and describe plans for data collection in the coming cycle.

Please provide a brief summary of your analysis of the data for Measure 1.3. (pp. 42)

Do your data indicate that Target 1.3 was met? Partially met? Not met? Not reported this cycle? (If not reported, please indicate the reason.)

Please place an "X" in the appropriate box below.

Target	Met	Partially Met	Not Met	Not Reported this Cycle (Please provide reason)
1.3				

Please provide a brief summary of the factors you believe contributed to these results. (pp. 43)

Measure 1.3 Action Planning. If the targets for this measure were ***Not Met*** or ***Partially Met***, please provide one or more action plans that indicate how you will improve student learning on this outcome. If the targets were ***Met***, you may provide one or more action plans, if you choose. One blank action plan template is provided below. Copy and paste the template into this section for additional action plans, if needed. (pp. 45-48)

Action Plan 1.3 (Short Title)

Please describe what you plan to do. Include a brief rationale, focused on student learning.

What is the intended impact on student learning?

Action Steps and Person(s)/Group responsible (add rows, if needed)

No.	Action Step	Person(s)/Group Responsible
1		
2		
3		
4		

Expected start date (MM/DD/YY) _____ **Expected completion date (MM/DD/YY)** _____

Are additional resources needed to complete this? Be specific. For resources that include a budget request, please provide cost breakdown and total cost.

Outcome 2

Target 2.1 (P)

Target 2.1 (S)

Sampling 2.1

How many students were included in the data collection for Measure 2.1? How were they selected? (pp. 35, pp. 42-43)
If data collection did not occur, please explain why, and describe plans for data collection in the coming cycle.

Please provide a brief summary of your analysis of the data for Measure 2.1. (pp. 42)

Do your data indicate that Target 2.1 was met? Partially met? Not met? Not reported this cycle? (If not reported, please indicate the reason.)

Please place an "X" in the appropriate box below.

Target	Met	Partially Met	Not Met	Not Reported this Cycle (Please provide reason)
2.1				

Please provide a brief summary of the factors you believe contributed to these results. (pp. 43)

Measure 2.1 Action Planning. If the targets for this measure were ***Not Met*** or ***Partially Met***, please provide one or more action plans that indicate how you will improve student learning on this outcome. If the targets were ***Met***, you may provide one or more action plans, if you choose. One blank action plan template is provided below. Copy and paste the template into this section for additional action plans, if needed. (pp. 45-48)

Action Plan 2.1 (Short Title)

Please describe what you plan to do. Include a brief rationale, focused on student learning.

What is the intended impact on student learning?

Action Steps and Person(s)/Group responsible (add rows, if needed)

No.	Action Step	Person(s)/Group Responsible
1		
2		
3		
4		

Expected start date (MM/DD/YY) _____ **Expected completion date (MM/DD/YY)** _____

Are additional resources needed to complete this? Be specific. For resources that include a budget request, please provide cost breakdown and total cost.

Measure 2.2 (Direct)

Target 2.2 (P)

Target 2.2 (S)

Sampling 2.2

How many students were included in the data collection for Measure 2.2? How were they selected? (pp. 35, pp. 42-43)
If data collection did not occur, please explain why, and describe plans for data collection in the coming cycle.

Please provide a brief summary of your analysis of the data for Measure 2.2. (pp. 42)

Do your data indicate that Target 2.2 was met? Partially met? Not met? Not reported this cycle? (If not reported, please indicate the reason.)

Please place an "X" in the appropriate box below.

Target	Met	Partially Met	Not Met	Not Reported this Cycle (Please provide reason)
2.2				

Please provide a brief summary of the factors you believe contributed to these results. (pp. 43)

Measure 2.2 Action Planning. If the targets for this measure were ***Not Met*** or ***Partially Met***, please provide one or more action plans that indicate how you will improve student learning on this outcome. If the targets were ***Met***, you may provide one or more action plans, if you choose. One blank action plan template is provided below. Copy and paste the template into this section for additional action plans, if needed. (pp. 45-48)

Action Plan 2.2 (Short Title)

Please describe what you plan to do. Include a brief rationale, focused on student learning.

What is the intended impact on student learning?

Action Steps and Person(s)/Group responsible (add rows, if needed)

No.	Action Step	Person(s)/Group Responsible
1		
2		
3		
4		

Expected start date (MM/DD/YY) _____ **Expected completion date (MM/DD/YY)** _____

Are additional resources needed to complete this? Be specific. For resources that include a budget request, please provide cost breakdown and total cost.

Measure 2.3 (Indirect)

Target 2.3 (P)

Target 2.3 (S)

Sampling 2.3

How many students were included in the data collection for Measure 2.3? How were they selected? (pp. 35, pp. 42-43)
If data collection did not occur, please explain why, and describe plans for data collection in the coming cycle.

Please provide a brief summary of your analysis of the data for Measure 2.3. (pp. 42)

Do your data indicate that Target 2.3 was met? Partially met? Not met? Not reported this cycle? (If not reported, please indicate the reason.)

Please place an "X" in the appropriate box below.

Target	Met	Partially Met	Not Met	Not Reported this Cycle (Please provide reason)
2.3				

Please provide a brief summary of the factors you believe contributed to these results. (pp. 43)

Measure 2.3 Action Planning. If the targets for this measure were ***Not Met*** or ***Partially Met***, please provide one or more action plans that indicate how you will improve student learning on this outcome. If the targets were ***Met***, you may provide one or more action plans, if you choose. One blank action plan template is provided below. Copy and paste the template into this section for additional action plans, if needed. (pp. 45-48)

Action Plan 2.3 (Short Title)

Please describe what you plan to do. Include a brief rationale, focused on student learning.

What is the intended impact on student learning?

Action Steps and Person(s)/Group responsible (add rows, if needed)

No.	Action Step	Person(s)/Group Responsible
1		
2		
3		
4		

Expected start date (MM/DD/YY) _____ **Expected completion date (MM/DD/YY)** _____

Are additional resources needed to complete this? Be specific. For resources that include a budget request, please provide cost breakdown and total cost.

If you want to make any changes to your assessment plan, please enter ONLY the changes in the spaces provided below.

Outcome 1	
Measure 1.1	
Sampling 1.1	
Target 1.1	
Measure 1.2	
Sampling 1.2	
Target 1.2	
Measure 1.3	
Sampling 1.3	
Target 1.3	
Measure 2.1	
Sampling 2.1	
Target 2.1	
Measure 2.2	
Sampling 2.2	
Target 2.2	
Measure 2.3	
Sampling 2.3	
Target 2.3	