



2014-2018 SLO Assessment Reports: Analysis

The HonCC approach to assessment resonates with two classic definitions in the literature. According to Marchese (2004), assessment is “a rich conversation about student learning informed by data.” Palomba and Banta (1999) add that assessment is “the systematic collection, review, and use of information about educational programs undertaken for the purpose of improving student learning and development.” The etymology of the term “assess”—“assidere” in Latin, meaning “to sit beside”—also echoes Hawaiian approaches to education.

At the HonCC, assessment is a *collaborative* process, which involves the whole campus community—students, staff, faculty, and administrators. It has a *methodical* foundation, based upon quantitative and qualitative data about student learning. It is *meaningful* as it aims to create continuous opportunities for enhancing all facets of student development, in both instructional and non-instructional areas. This value is gained by encouraging reflective teaching, keeping focus on student learning, and creating cohesion across courses, programs, and the college mission. Campus assessment consists of five main steps: (1) defining the outcomes, (2) determining the methods to assess the outcomes, (3) gathering evidence on the outcomes, (4) analyzing the evidence, (5) using this information towards improvement. Face-to-face, online, and hybrid courses follow SLO assessment in the same manner.

I. Defining the Outcomes

HonCC has established outcomes at four levels (see enclosure 1 “Outcomes and methods: Guidelines”). First, at the non-instructional service level, there are 85 Service Area Outcomes (SAOs). Constituents achieve SAOs after participating in a particular experience, including students, staff, faculty, and any other participants. Each SAO is linked to the mission of the division as well as to at least one ILO. Units that do not have contact with students link each SLO to all ILOs, because their work indirectly supports all facets of student learning. Second, at the course level, there are 6,037 Student Learning Outcomes (SLOs). Students achieve SLOs after completing a course. Each SLO is linked to at least one PLO. All faculty are required to use the SLOs from the Kualii Student Curriculum Management System (KSCM) and list them on the course syllabi. Third, at the program level, there are 176 Program Learning Outcomes (PLOs). Students achieve PLOs after completing a specific degree or path of study (see enclosure 2 “PLO-ILO map”). Finally, at the college level, there are six Institutional Learning Outcomes (ILOs). Students achieve ILOs across all disciplines, through both instructional and non-instructional support (see enclosure 2 “PLO-ILO map”). This four-folded curriculum map is valuable for the campus, because it (a) aligns outcomes across services, courses, programs, and the institution mission; (b) reveals outcome distribution and possible gaps; and (c) allows data collection around SLOs and SAOs to draw conclusions on PLOs and ILOs as well, through SLO/SAO-PLO-ILO linkages.

II. Determining the Methods to Assess the Outcomes

Once the SLOs and SAOs are created, faculty and staff determine how to assess them and what criteria will be used for success (see enclosure 1 “Outcomes and methods: Guidelines”). There are two kinds of assessment. First, direct assessment methods require participants to demonstrate knowledge and skills as well as provide data that directly measure achievement of expected outcomes. In many cases, the same instruments that are used for grading are adapted to



provide data regarding SLO assessment. This is known as embedded assessment. Examples include embedded questions, lab tasks, and projects. Second, indirect assessment methods require that faculty and staff infer participant abilities from sources other than observable evidence. Often this involves participants self-reporting their learning. Examples include various types of surveys. Both methods are valid, although indirect methods alone are often considered insufficient in providing evidence in instructional areas.

III. Gathering Evidence of the Outcomes

Over a five-year cycle, all courses (i.e., face-to-face, online, hybrid) and non-instructional services perform ongoing assessment of learning outcomes. In addition, each course and service has to provide a formal outcome report at least once over the five-year cycle. Currently the college is completing the 2013-2018 cycle, which had a special start. In the year 2013-2014, all courses were assessed in response to ACCJC visiting team's request. Therefore, the remaining four years have been used to run a second round of assessments. In the 2014-2017 academic years, 100% of the services provided SAO reports and 70% of the courses provided SLO reports; the remaining 30% of the courses are scheduled to provide SLO reports in Spring 2018 (see enclosure 3 "SLOs: Report schedule—sample"). Faculty and managers use a variety of formats for their reports, ranging from Word documents to PDFs and Excel spreadsheets (see enclosure 4 "SLOs and SAOs: Reports—samples"). They also address a variety of prompt questions, usually about what helped participants to meet the outcomes and what can be adjusted to further support their learning next time. In addition, over the five-year cycle, each course provides a syllabus for a selected semester; Fall 2017 has been selected for this 2013-2018 cycle (see enclosure 5 "Syllabi: Fall 2017 schedule—sample").

IV. Analyzing the Evidence

In January 2018, I conducted a pilot study on SLOs by drawing from the datasets from three of the six campus academic divisions—Communication and Services, Natural Sciences and Math, and Hawaiian programs. I selected these three divisions because they provided Excel spreadsheets that were formatted consistently and addressed the same topics: (a) mode of instruction (i.e., face-to-face, online, hybrid); (b) SLO-PLO linkage; (c) assessment method; (d) number of students who did, and did not, meet the SLO; (e) instructional strategies that supported student mastery of the SLOs; and (f) changes that faculty members will implement in the future to support student mastery of the SLOs. I ran descriptive statistics and coded the narratives according to Grounded Theory methodology (Charmaz, 2010). In the 2018-2023 cycle, full analyses will be possible with the adoption of the assessment database.

The three divisions cover 42% of the total number of SLOs on campus (2,555 out of 6,070). First, I analyzed a sample of 72% of the total number of SLO for the three divisions (1,833 out of 2,555), meaning 548 sessions. I focused on the SLO reports that were made available in 2014-2017. This pilot study showed that 87.6% of the assessed students met the SLOs. Within this sample of 1,833 SLOs, 87.6 % of students attended face-to-face courses, 88.2% of the students attended online courses, and 85% of the students attended hybrid courses.

Second, I analyzed a sample of 9% of the initial sample of SLOs (164 out of 1,833) in order to draw conclusions at the ILO level. I used a smaller sample size because of the laborious task of manually linking each SLO to PLO(s) and each PLO to ILO(s) according to the campus curriculum maps. Note that the upcoming assessment database will automatically link outcomes,



allowing more extensive analyses. I focused on SLO reports with complete data across all fields, including quantitative and qualitative data about assessment methods and SLO findings. This study showed that 75.7% of the assessed students met SLOs (2,179 of 2,877). Within this sample of 164 SLOs, 72.9% of students met ILO 1 Critical Thinking, 72.2% of students met ILO 2 Information Literacy, 74.5% of students met ILO 3 Effective Communication, 73.2% of students met ILO 4 Quantitative Reasoning, 73.3% of students met ILO 5 Career Preparation, and 77.2% of students met ILO 6 Community Awareness/Social Responsibility.

Third, I analyzed the original sample of 1,833 SLOs to quantify the variety of assessment methods around SLOs. I identified key categories and found that 29% of the SLOs were assessed through exams, 21% through embedded questions, 18% through lab tasks, 9% through activities, 8% through presentations, 7% through projects, 4% through papers, and 3% through practica.

Finally, I coded all faculty reflections about the strategies to support student mastery of the SLOs within the Universal Design for Learning (UDL) model (see table 1). I provide the percentages of how many times each UDL guidelines emerges from the data; yet, all strategies are equally important and used in different contexts.

Table 1: Universal Design for Learning (UDL) Guidelines

I. Provide Multiple Means of Representation	II. Provide Multiple Means of Action and Expression	III. Provide Multiple Means of Engagement
1: Provide options for perception 1.1 Offer ways of customizing the display of information 1.2 Offer alternatives for auditory information 1.3 Offer alternatives for visual information	4: Provide options for physical action 4.1 Vary the methods for response and navigation 4.2 Optimize access to tools and assistive technologies	7: Provide options for recruiting interest 7.1 Optimize individual choice and autonomy 7.2 Optimize relevance, value, and authenticity 7.3 Minimize threats and distractions
2: Provide options for language, mathematical expressions, and symbols 2.1 Clarify vocabulary and symbols 2.2 Clarify syntax and structure 2.3 Support decoding of text, mathematical notation, and symbols 2.4 Promote understanding across languages 2.5 Illustrate through multiple media	5: Provide options for expression and communication 5.1 Use multiple media for communication 5.2 Use multiple tools for construction and composition 5.3 Build fluencies with graduated levels of support for practice and performance	8: Provide options for sustaining effort and persistence 8.1 Heighten salience of goals and objectives 8.2 Vary demands and resources to optimize challenge 8.3 Foster collaboration and community 8.4 Increase mastery-oriented feedback
3: Provide options for comprehension 3.1 Activate or supply background knowledge 3.2 Highlight patterns, critical features, big ideas, and relationships 3.3 Guide information processing, visualization, and manipulation 3.4 Maximize transfer and generalization	6: Provide options for executive functions 6.1 Guide appropriate goal-setting 6.2 Support planning and strategy development 6.3 Facilitate managing information and resources 6.4 Enhance capacity for monitoring progress	9: Provide options for self-regulation 9.1 Promote expectations and beliefs that optimize motivation 9.2 Facilitate personal coping skills and strategies 9.3 Develop self-assessment and reflection
Resourceful, knowledgeable learners	Strategic, goal-directed learners	Purposeful, motivated learners

Principle I. Provide multiple means of representation (47%).

Faculty provide options for language, mathematical expressions, and symbols (UDL guideline 2, mentioned 14% of the time). They clarify vocabulary, for instance by using “relevant supplemental media materials to illustrate theories” and “a design project for understanding of the terms.” They also illustrate concepts through multiple media, including animated diagrams, color charts, images, slides, simulations, hands-on demonstrations, and



interactive activities. For example, they employ “videos that supplement readings” and “peak interest in chemistry as it relates to today’s professionals in the salon industry.”

Faculty provide options for comprehension (UDL guideline 3, mentioned 33% of the time). **They activate background knowledge**, for instance by explaining “stories behind place names” and “replacing textbook examples with local businesses’ examples.” **They highlight patterns**, critical features, big ideas, and relationships through chapter summaries, lecture outlines, content pages, handout notes, strategies on handling data, and theory-practice combinations before field trips (e.g., to the local prison). For instance, they “construct a more innovative study guide to make students think and seek out answers” and “change the chapter handouts into a worksheet format which will allow students to work on a clear framework before they are reading each chapter.” **They guide information processing**, visualization, and manipulation through critical thinking exercises and comparisons. They also **maximize transfer** and generalization by offering hands-on learning experience and approaches to help students connect with the topic. For instance, they “compare communication styles of the dominant Western culture with other prevalent cultures, such as Asian or local culture” and “provide different approaches to help students connect, such as hands-on activities on caring for the land.”

Principle II. Provide multiple means of action and expression (30%).

Faculty provide options for physical action (UDL guideline 4, mentioned 4% of the time). **They optimize access** to tools and assistive technologies through online resources and auxiliary materials, such as platforms for note taking and Lualaba (“cooperation” in Hawaiian language) for online posting of class material, lectures, assignments, and exams. For example, they “showed students internet-based hair designs that looked out-of-the-box” and “integrated online research skills into some of the hands-on assignments.”

Faculty provide options for expression and communication (UDL guideline 5, mentioned 6% of the time). **They employ multiple media** for communication, by encouraging “student participation,” and “picking students randomly to answer open ended questions.” **They build fluencies** with graduated levels of support for practice and performance through skill repetition, project-based assignments, and application activities. For instance, they include “students practice stress management and prevention techniques in class” as well as “lab with hardware to provide real life experience in a controlled environment.”

Faculty provide options for executive functions (UDL guideline 6, mentioned 20% of the time). **They guide appropriate goal-setting** by organizing the syllabus in terms of topics and sub-topics, setting the course pace, providing samples of exemplary work, and creating assignment guidelines. Depending on the circumstances, they “set quick turnaround time from date assigned to due date” or “allow students more time to work on project.” **They support planning** and strategy development, by encouraging students to use campus resources, such as the “tutoring center,” “writing center,” and “a Library workshop—librarian spoke about skills for researching and resources that could be used.”

They facilitate managing information and resources through mind mapping, practice sheet analysis, and special assignments. They “put a great thought into structuring the passport” and “had a transition project from working on analog gear to digital workstation.” **They enhance the capacity for monitoring progress** through optional review sessions outside of class, in-class review of concepts before exams, practice exams with samples, graded pre-quizzes, and systematic progressions. For instance, they “practice role-play in class before the actual



assignment” and in doing so came to the realization that they “have to continue to have more problems in class and homework to reinforce the exam.”

Principle III. Provide multiple means of engagement (23%).

Faculty provide options for recruiting interest (UDL guideline 7, mentioned 1% of the time). **They optimize individual choice and autonomy** by allowing students to select topics, learning tools, and assignments. For example, “students chose the ideas and activities they wanted to plan and share with classmates” or “students choose outside models.” **They optimize relevance**, value, and authenticity by having students create web pages and technical materials, such as “safety posters.”

Faculty provide options for sustaining effort and persistence (UDL guideline 8, mentioned 20% of the time). **They heighten the salience of goals** and objectives through case studies, real world problems, group review questions, and strategies to analyze relevant current events. They find that “students recognize effective conflict management skills in real-life scenarios.” **They foster collaboration** and community by making space for group problem processes, small group discussions, and partnering in manual practices. **They increase mastery-oriented feedback** through individual critiques, lab follow-up, review of drafts, discussion on assignments, better defined rubrics, and “feedback on step one before continuing to step two.”

Faculty provide options for self-regulation (UDL guideline 9, mentioned 2% of the time). **They promote expectations and beliefs** that optimize motivation, mainly through mentorship. A faculty member articulates, “we talked about the assignment in pieces/steps; students also had time to get feedback from peers about their assignment before the due date; they also received help on this assignment from their Mentor Teachers.” **They facilitate personal coping skills** and strategies, by discussing options in preparation for future career goals, encouraging students “to think about short- and long-range goals within the industry, and identify which job offers to accept according to their own criteria.” **They develop self-assessment and reflection**, for example through self-assessment inventories. One faculty member found it beneficial to have “students share their experiences with the material delivered in class.”

Note on online courses

Face-to-face, online, and hybrid courses had similar assessment results; therefore, the dataset findings were analyzed in aggregate. Disaggregated data on online courses show that 2044 out of 2317 students (88%) met SLOs. With regards to methods, 35% of the SLOs were assessed through embedded questions, 30% through activities, 13% through exams, 10% through projects, 8% through papers, and 3% through presentations (lab tasks and practica were utilized in face-to-face courses as they fit that mode of instruction better than digital platforms). Through the lens of Universal Design for Learning (UDL), faculty members adopt inclusive practices to reach out to students in online courses:

1. Multiple means of representation. The assessment results show that 46% of teaching strategies provide vocabulary clarifications, study guides, practice problems, visual resources, and activities to help student connect to the subject and ask questions.
2. Multiple means of action and expression. In 37% of the teaching practices, faculty clarify expectations several times, show samples of assignments, have students work on projects week by week, give students class time to share information prior to exam due date, and encourage students participating in forum discussion.



3. Multiple means of engagement. In 17% of the instructional designs, faculty members implement activities for current issues, create opportunities for pair or small group work, and add substantial feedback prior to assignment due date (<http://www.udlcenter.org>).

V. Using Assessment towards Improvement

The results of SLO and SAO assessment are used in multiple ways. At the individual level, faculty and staff members reflect on their findings and make adjustments intended to improve outcomes in the future. At the department level, they also discuss results in their faculty and staff meetings. For instance, the History department found that (a) Knowledge Surveys give a good overview of what students are learning, primarily in terms of content areas; (b) embedded assessment gives more specific data about historical analytical skills students are able to perform, (c) SLO reflections allow faculty to identify and share useful teaching strategies to improve classes (Patterson, 2018). On the non-instructional side, the Academic Counseling unit collectively (a) reviewed the SAOs, (b) identified assessment methods, (c) trained counselors on assessment processes, (d) organized existing data (e.g., file naming conventions and google drive shared network), (e) analyzed SAO results to target advising (Balbag-Gerard, 2018).

At the campus-wide level, SLO and SAO results are linked to ILOs, as explained previously. With the data analysis, I present the findings on ILO assessments at Townhall meetings at the beginning of every semester, including a Q&A session (see enclosure 6 “Assessment Townhall agenda”). I also discuss them with the Assessment Taskforce at our monthly meetings (see enclosure 7 “Assessment Taskforce agenda”).

In addition, I use both ILO results and the Assessment Needs Survey to identify areas where faculty and staff need support, so I can provide relevant assessment trainings (see enclosure 8 “Survey: Assessment Needs”). Workshop topics include “Introduction to learning outcomes and curriculum maps” and “Workshop on SLO-PLO updates in KSCM.” I am in the process of drafting the 2018-2019 schedule of assessment trainings with the Faculty Support Coordinator. I offer private consultations to faculty and staff who want to revise their outcomes or assessment instruments—from Carpentry to Administration of Justice, Physics, Hawaiian Center, Wellness Center, Human Resources, Outreach and Orientation, and many more across divisions. All assessment-related documents and processes are posted at <https://www.honolulu.hawaii.edu/assessment>, which was launched in February 2018.

Conclusion: Future Directions

Several long-term action projects aim to make the assessment process on campus more robust over the next five year-cycle, 2018-2023. With regard to outcomes, in Spring 2018 I started a process to clean up SLOs within KSCM (see enclosure 9 “SLO Streamlining in KSCM: Process”). Faculty have begun reviewing the content of their SLOs and linking them to PLOs. Once KSCM has updated SLOs, it can serve as the main source of reference for syllabi, website, new assessment database, and all other platforms. Managers are also revising their SAOs in preparation of the upcoming 2018-2023 cycle for outcome reporting, in order to embark on a clean and fresh start.

Within the area of methods, I plan to continue the monthly trainings and consultations for faculty/staff. Building solid instruments and analyses is an essential step in the assessment process. In the last year of the 2018-2023 cycle, I would like to launch a special assessment on ILOs by creating an interdisciplinary committee that will examine student artifacts across



divisions by using a rubric on ILO mastery. In addition to SLO/SAO and PLO analyses, the ad hoc ILO assessment will create a triangulation process, which will increase validity in our studies.

With regard to evidence, in Fall 2018 the designated campus bodies will facilitate the creation of a policy and procedures document on assessment to formalize the practices that have been in place over the past five years (e.g., assessing all SLOs for each course at least once over the five-year cycle). Selecting an assessment database is also essential. In Spring 2018 I created a committee of six representatives across divisions, who had tested a variety of platforms over the years. By the end of Spring 2018 we will make a recommendation for the purchase of an assessment data management system, based upon eleven criteria and rigorous demonstrations (see enclosure 10 “Assessment database: Selection process”). If accepted, the implementation of the assessment database will require a complex negotiation with the UH system, in order to obtain permission to interface Banner, Sakai, and the assessment database. By 2020, I hope the assessment database will be integrated and developed to allow student-level assessment. The migration from paper-based to digital platforms will facilitate data-entry, analysis, and utilization.

The possibilities for the analysis of assessment data will broaden through the adoption of a database. Faculty and staff will be able to analyze their SLO/SAO reports, liaisons and chairs will have access to PLO data in a systematic manner, and administrators will be able to look at institutional results. The room for the utilization of assessment towards improvement will also expand, as conversations at all levels will become more data-driven. One of the criteria for the database selection is technical support, including ongoing webinars and one-on-one help desk. These multi-year, long-term action plans will improve all facets of the assessment process, so that the data collection and analysis can maximize their potential towards improving student learning. My participation in the 2018 WSCUC Assessment Leadership Academy (ALA) will be a great asset for all these initiatives.

Table 2: Assessment directions

Area	Initiative	Parties	Timeline
1.Outcomes	Streamline SLOs/SAOs	Faculty, under chair’s supervision (SLOs); Leads (SAOs)	Year 2018
2.Methods	Provide trainings/consultations for faculty/staff on assessment	Institutional Assessment Specialist	Spring 2018 on (monthly)
	Launch ILO assessment via rubric and samples of students’ artifacts	ILO Committee	Year 2023
3.Evidence	Create assessment policy/procedures	Institutional Assessment Specialist’s draft, designated campus bodies’ approval	Fall 2018
	Select, develop, implement assessment database	Assessment Database Committee, HonCC, UH system	Years 2018-2019
	Enter SLO/SAO data in assessment database	Faculty/staff	Years 2020-2023



4. Analysis	Utilize new assessment database for SLO/SAO-PLO-ILO data entry and analysis	Faculty, Liaisons, chairs, Institutional Assessment Specialist	Year 2021 on
5. Improvement	Increase discussion forums around outcome findings at the department and campus level	Liaisons, chairs, institutional assessment specialist	Spring 2018 on