SLO-ILO Assessment: Analysis

• **Bottom-up process**: From SLO/SAO to PLO to ILO

• **Population**: Tech 2, Hawaiian Programs, Natural Sciences

• **Findings**: 1,834 SLOs reported, of which:
  – 95.3% provided numerical data (1,747)
  – 26.17% provided textual data (480)
Analysis: Numerical data

87.6% of the assessed students met SLO (28,967 of 33,070):

- Face-to-face: 87.6% (26,583 out of 30,347)
- Online: 88.2% (2,044 out of 2,317)
- Hybrid: 85% (17 out of 20)
Analysis: Numerical data (Cont.)

Sample: 9% of the SLO reported

75.7% of the assessed students met SLO (2,179 of 2,877)
Analysis: Numerical data (Cont.)

Of the students assessed:

1. 72.9% met ILO 1 Critical Thinking (970 out of 1,330)
2. 72.2% met ILO 2 Information Literacy (866 out of 1,199)
3. 74.5% met ILO 3 Effective Communication (1,215 out of 1,631)
4. 73.2% met ILO 4 Quantitative Reasoning (334 out of 456)
5. 73.3% met ILO 5 Career Preparation (1,234 out of 1,684)
6. 77.2% met ILO 6 Community Awareness/Social Responsibility (1,291 out of 1,673)
# Analysis: Textual data

## Universal Design for Learning Guidelines

### I. Provide Multiple Means of Representation
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
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
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

### II. Provide Multiple Means of Action and Expression
4. Provide options for physical action
   - 4.1 Vary the methods for response and navigation
   - 4.2 Optimize access to tools and assistive technologies
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

### III. Provide Multiple Means of Engagement
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
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
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

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Analysis: Textual data (cont.)

Principle 1: Provide multiple means of representation

Clarify vocabulary: Definitions, terminology.
Quote: “I used relevant supplemental media materials to illustrate terms and concepts.”

Illustrate through multiple media: Visuals, diagrams, charts, colors, pictures, slides, videos, demonstrations, activities.
Quote: “I used a variety of videos to peak interest in …”
Activate knowledge: Lectures, stories, examples.

Quote: “I replaced textbook examples with local businesses’ examples.”

Highlight key concepts: Chapter summary, lecture outline, content page, handout notes, study guide, workbook.

Quote: “I change the chapter handouts into a worksheet format which will allows students to work on a clear framework before they are reading each chapter.”
Analysis: Textual data (cont.)

Guide information processing: Critical thinking exercises.

Quote: “In class discussion with expanded critical thinking scenarios.”

Maximize transfer/generalization: Practical scenarios, approaches to help students connect with the topic.

Quote: “I compared communication styles of the dominant Western culture with other prevalent cultures such as Asian or local culture.”
Principle 2: Provide multiple means of action/expressions

Optimize access to technologies: Online learning tools, auxiliary materials, usage of Laulima.

Quote: “I integrate online research skills into some of the hands-on assignments.”

Use multiple media for communication: Discussion, Q&A.

Quote: “Student participation is encouraged and/or picked randomly to participate to open ended questions.”
Build practice and performance: Application activities, project-based assignments, practical exam.

Quote: “Lab included hardware to provide real life experience in a controlled environment.”

Guide appropriate goal-setting:
Syllabus topics/sub-topics, course pace, assignment instructions/due dates.

Quote: “I had exemplary samples as models.”
Support planning and strategy development: Tools to improve learning, encouragement to use campus resources.

Quote: “I had a Library workshop—librarian spoke about skills for researching and resources that could be used.”

Facilitate managing information: Mind mapping, practice sheet analysis.

Quote: “Transition project from working on analog gear to digital workstation (Pro Tools).”
Analysis: Textual data (cont.)

**Enhance capacity for monitoring progress:** Review sessions before exam, practice exam with samples, graded pre-quiz.

**Quote:** “I have to continue to have more problems in class and homework to reinforce the exam.”
3. Provide multiple means of engagement

**Optimize individual autonomy:** Choice in topic, learning tools, assignment.

*Quote:* “Students chose the ideas/activities they want to plan/share with classmates.”

**Optimize relevance/value:** Create technical material and products.

*Quote:* “Had the student make safety posters.”
Heighten salience of objectives: Real world problems, current events, case studies, real situations.

Quote: “Students recognize effective conflict management skills in real-life scenarios.”

Foster collaboration and community: Group problem process, practice in small groups, pair activities.

Quote: “Students worked in group to create a set of activities.”
Analysis: Textual data (cont.)

Increase mastery-oriented feedback: Reviews of outlines, drafts, assignments; opportunities to revise; peers’ feedback.

Quote: “Rubric assessment of their skills during the semester—techniques, time management,...”

Promote beliefs that optimize motivation:
Mentorship

Quote: “The students worked well with their mentor teachers and built strong relationships with them.”
Facilitate personal coping skills and strategies: Discussion of options in preparation for future career goals.

Quote: “Students share short- and long-range goals within the industry, and learn to identify which job offers to accept according to their own criteria.”


Quote: “I had students share their experiences with the material delivered in class.”
Mahalo!

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