Uses of Program Assessment Results: Best Examples from UH Mānoa

Suggested citation:

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License
Workshop Description

Use of Program Assessment Results: Best Examples from UH Mānoa

What are the possible ways to use program learning assessment results? How can programs make programmatic changes that are feasible and meaningful? What kind of interventions have programs used to improve written communication, oral communication, and information literacy? Come and learn from the best examples at the UH Mānoa campus and leave with a plan to use learning assessment for program improvement.

**Level**: Basic knowledge recommended (e.g., learning outcomes, curriculum map)

**Who should attend**: Program assessment coordinators, department chairs, assessment and curriculum committee members, and interested faculty.

**Format**: Presentation + Interactive Activities

**Date/time/location**:  
Thursday, October 20, 2016, 10:30 AM - 11:45 AM, KUY 106  
OR  
Monday, October 24, 2016, 3:00pm - 4:15pm, KUY 106
Program Assessment Definition

An on-going process designed to monitor and **improve** student learning. Faculty: a) develop explicit statements of what students should learn (i.e., student learning outcomes); b) verify that the program is designed to foster this learning (alignment); c) collect data/evidence that indicate student attainment (assessment results); d) use these data to **improve student learning** (close the loop). (Allen, M., 2008)

The Assessment office was established in 2008 based on faculty senate recommendation. It reports to both faculty senate and AVCAA. There are two faculty specialists currently in the office to carry out the mission of the office.
Slide 4

Assessment cycle

Learning Outcomes
Use Results
Learning Opportunities
Interpret Results
Collect & Evaluate Evidence

Slide 5

238 academic degree programs need to demonstrate using assessment for improvement

To what extent is this happening?
Slide 6

Overview of Campus Status

Slide 7

Over $\frac{3}{4}$ programs used assessment twice in a five-year period

Data: 2015 Annual Program Assessment Reports
Sample: 151 reports from 164 programs that claimed use of results
Excellent use-of-results means that the actions taken are clearly aligned with the specific results and the judgment on the results. It is not sufficient to say: “We changed the course content.” An excellent report would say: “Because we found a deficiency in student writing, especially when it relates to summarizing primary sources, we added two writing assignments in course 123. In particular, we ask students to summarize three sources.”

A report that describes excellent use-of-result would demonstrate that the program carefully analyzed the reasons behind the results. The program used careful reflection, deliberation, and collaborative discussion that lead to the solution proposed and implemented.

Slide 9

Major uses for enhancing learning

- Assessment tools and procedures
- Course changes
- Program curriculum and policy
- Resources and personnel
- Student out-of-course experiences
Slide 10

Major uses for satisfactory results

C  Celebration

N  No change needed

---

Slide 11

Assessment & course changes are the most frequent uses

- A: 37%
- C: 37%
- P: 23%
- S: 22%
- R: 14%
Slide 12

About half made curriculum changes

Slide 13

Excellent Examples from UHM
To increase the depth of content coverage, NREM faculty collaboratively reduced the topics in a newly designed introductory level graduate course. They used dot-voting to rank order priority topics. Link to the poster is here.
In the process of examining curriculum alignment with program learning outcomes, the Department of Biology discovered that there is minimal structure at the upper division courses. The assessment coordinator facilitated the collaborative decision on content coverage in the upper-level courses, both in electives and in the capstone course. *Link to the poster is [here](#).*

The Biology faculty collaboratively determined the key content to cover in the upper-level courses that align with their SLOs.
Slide 18

**Assignment/Activities**

To assess critical thinking better in upper level undergrad Chinese

800 word argumentative essay → 15-20 page research paper

Through faculty collaborative discussion about curriculum alignment, the Chinese Department changed their culminating assignment to a formal research paper, instead of an argumentative essay, in upper level undergraduate courses. *Link to the assessment report is here.*

Slide 19

**Assignment/Activities**

Satisfactory results → further enhance critical analysis:

- Organized more structured class discussions
- Broke down assignments into smaller steps
- Clarified assignment instructions/directions

In Educational Foundations MEd program, the assessment results showed that all students met the standards (equivalent of SLOs). Even so, faculty still want to further enhance students’ ability of critical thinking and analysis. Through faculty collaborative discussion and sharing strategies, they: a) Organized more structured class discussions, b) Broke down assignments into smaller steps, c) Clarified assignment instructions/directions. *Link to the 2015 assessment report is here.*

Slide 20
Center for Pacific Islands Studies developed lessons which function as workshops to be integrated into individual courses. These workshops were offered by a senior editor and a graduate assistant. Course instructors, after sitting through the workshop with their students, started to teach the workshop themselves. Link to the poster is here.
Computer Engineering BS: Achievement in SLO 12: Discrete Math is the lowest at 70% in comparison with the other outcome achievement. To increase this outcome achievement, the department took many actions, and one of them is to create a new course EE362 which covers the materials in both the introductory Discrete Math course in ICS 141 and the next level Discrete Math course in ICS 241. It is designed with solving engineering problems in mind. They also make EE362 a pre-requisite for an advanced computer algorithms course. Link to the 2015 Assessment Report is here.
Among an array of actions to improve the students on quantitative reasoning, the most commendable is this cross-discipline collaboration with the math department to make this pre-requisite calculus course more relevant to the majors. They also offered Econ 420: Mathematical Economics on a regular basis. Requested TA support for Econ 130: Principles of Microeconomics. Link to the 2015 Assessment Report is here.

After the program revised their SLOs, they see the need to revise an existing core course. When the instructor showed unwillingness to change the course content, they created a new course and asked the same instructor to teach the new course. Poster Link is here.
Slide 24

Other
- Assign General Education designation (e.g., writing intensive)
- Course title & description change
- Delete/combine courses

Slide 25

Summary
a) Content coverage (NREM, Biology)
b) (Signature) Assignment (Chinese)
c) Classroom activities/materials (Pacific Island Studies, Education Foundations)
d) General Education Designation (Pacific Islands Studies)
f) Course title & description change (Curriculum Studies, Dance)
g) Delete/combine courses (American Studies)
h) Add a new course (Public Administration)
Make the change feasible— Have faculty share

[Picture of two faculty discussing with each other]

Program Curriculum & Policy Changes
Slide 28

Make learning path clear through pre-requisite policies

- SLO 12: Discrete math → 70%
- Prerequisites grade requirement C- to C
- EE 362 as prerequisite for EE 367 in advanced algorithm

Slide 29

Make learning path clear through course-taking sequence

Academy for Creative Media analyzed students’ skill developmental needs. They added requirements in three tiers to strengthen students’ skill development. *Poster link is here.*
Enhance learning opportunities

- Increase course offers (sections/frequency)

Public Health BA faculty reviewed Elective courses and assessed need (via online student survey) of additional PH elective courses/topics. Based on the survey results, they adjusted teaching priorities (in terms of courses offered), offered additional PH elective courses: a) Developed one new course, b) Taught 2 courses with more frequency. Link to the 2015 Assessment Report is here.
Enhance learning opportunities
• Increase repeat limit

EDUC 710: Group Consultancy Project

Professional Educational Practice (EdD) Assessment Report Excerpt:
We also used the results to inform our planning for the next EdD cohort, which will begin in Summer 2017. For example, we recently submitted the appropriate UHM-2 form to request a program change. Specifically, based on our data, we determined that we needed to make our EDUC 710: Group Consultancy Project course repeatable one more time in order to more closely meet our needs, as indicated by our data. Here's a summary of our proposed change:

"The Group Consultancy Project is one of two major projects required by the program. The change being requested is an increase in the repeat limit from one time to two times. The change is being requested because satisfactory completion of Group Consultancy Projects may require more time than currently available under the existing repeat limit."

As a program focused on the improvement of professional educational practice, our faculty members and mentors are very vigilant and committed to using the program data that we collect for our own program improvement.

Link to the 2015 Assessment Report is here.
Slide 32

**Align with SLOs**

Examine curriculum coherence (e.g., scaffolding)

Department of Second Language Studies found students need to improve on critical analysis SLO. Instructors collaboratively discussed ways to scaffold learning through multiple courses in the curriculum.

Slide 33

**Align with SLOs – Curriculum Restructure**

Based on the assessment results, Academy for Creative Media required students to take courses in specific sequence to achieve the target SLO. *Link to the 2015 Assessment Report is here.*
Slide 34

**Summary**

Make learning path clear
- Add pre-requisite(s)/co-requisite(s)
- Mandate a course-taking sequence

Enhanced learning opportunities
- Increased sections/frequency
- Increased course repeat limit (e.g., internship, practicum)

Align with SLOs
- Examined curriculum coherence
- Created/Restructured curriculum

Slide 35

Your turn
Slide 36

**Student Out-of-course Experiences**

---

Slide 37

**Advising/Mentoring**

- SLO 2: Inquiry Skills relatively low
- Advise students to take two methods courses

*Educational Psychology MEd 2015 Assessment Report is [here](#).*
Slide 38

**Resources for students**

*Student Handbook*

- Ch 1: Standards *(rubrics)*
- Ch 2: Preliminary procedures *(timeline)*
- Ch 3: Formatting the manuscript
- Ch 4: Manuscript Elements
- Ch 5: Resources (e.g., *developing a hypothesis*)

*Poster link is here.*

Slide 39

**Other**

- Co-curricular activities (workshops) *(Pacific Island Studies)*
- Financial/Career support *(Korean)*
Summary

a) Academic advising/mentoring (Education Psychology)
b) Resource Materials (handbooks, website) (MBBE)
c) Co-curricular activities (workshops) (Pacific Island Studies)
d) Financial/Career support (Korean)

Program Resources & Personnel
For the last two years the Social Work BSW and MSW Programs have held “teaching” sessions to address curriculum questions and common classroom issues. Topics have included curriculum rollout, vertical and horizontal sequencing, assignment design and implementation as well as classroom management. Also covered are SLOs, Student Learning Objectives (SLObs) and course assignment alignment. It is critical that both instructors and adjunct faculty recognize the need to connect assignments to stated outcomes and objects to measure competence. Because of this, the “teaching” sessions serve as both training site and site for program culture development that is competency based. Link to the 2015 Assessment Report is [here](#).
When a faculty retired, the Dance BA program examined their program SLOs and the achievement results. They rewrote the job description to recruit a faculty in the areas of their students’ learning needs. Link to the 2015 Assessment Report is here.

Poster link is here.
Slide 45

Summary

a) Professional development for faculty (e.g., Hawaiian studies, English, Social Work)
b) Acquire personnel (rewrite job ad in Dance)
c) Acquire new technology/facility/material

Slide 46

Assessment
Improving assessment processes and tools is a common way for programs to use results. 13% of the programs created or revised their program SLOs. 8% created or improved their curriculum map. 20% of the programs made changes to how they collect and evaluate evidence. 

*Side note:* Among the 20% of the programs who made changes to how they collect and evaluate data:
- Selected/Modified Evidence 7%
- Created/Modified Collection Method 8%
- Created/Modified Rubric 6%
- Changed Evaluation procedure 4%
- Set Standards 1%

---

**Student Learning Outcomes**

**Removal**

SLO 9: Improve the quality of teaching...languages, in the state of Hawai‘i...

*Poster Link is [here](#).*
Slide 49

**Curriculum Map**

Fostering Grant Writing Skills: A Student Learning Objective (SLO) of the Intercollege Nutrition PhD Program

Fialkowski MK, Esquivel MK, and Novelty R

SLO: Grant Writing
Curriculum Map: nothing for grant writing

Mock Grant proposal

Poster Link is [here](#).

Slide 50

Celebration
School of Communications received high remarks from the External Advisory Committee, who evaluated their students’ portfolios based on the program SLOs. Many committee members are employers. They expressed the desire to hire these graduating students. The department reported this positive evaluation results to their Alumni—A great way to generate pride and support for the program.

Overview of ways to use results

- Assessment tools and procedures
- Course changes
- Program curriculum and policy
- Resources and personnel
- Student out-of-course experiences
- Celebration
Slide 53

**Writing Skills**

- American Studies (BA)
- American Studies (PhD)
- Chinese (BA)
- Elementary Education (BEd)
- English (MA)
- Molecular Biosciences and Biotechnology (BS)
- Pacific Islands Studies (BA)
- Pacific Islands Studies (MA)
- Public Health (BA)

Slide 54

**Information Literacy**

- American Studies (BA)
- Early Childhood Education (MEd)
- Educational Foundations (MEd)
- History (BA)
- Mathematics (BA, BS)
- Pacific Islands Studies (BA)
Slide 55

Oral Communication

- American Studies (PhD)
- English (MA)
- English (PhD)
- History (BA)
- Japanese (BA)
- Public Health (BA)

Slide 56

Your turn
Questions?

Thank you!
Yao Hill
Yao.hill@hawaii.edu
Assessment Office
UH Mānoa Ways of Using Program Assessment Processes and Results

Course Changes

☐ a) Content coverage (NREM, Biology)
☐ b) (Signature) Assignment (Chinese)
☐ c) Classroom activities/materials (Pacific Islands Studies, Education Foundations, English)
☐ d) General Education designation (Pacific Islands Studies, MBBE)
☐ f) Course title & description change (Curriculum Studies, Dance)
☐ g) Delete/combine courses (American Studies)
☐ h) Develop a new course (Public Administration)

Curriculum Changes

a) Make learning path clear
   ☐ Add pre-requisite(s)/co-requisite(s) (Computer Engineering, Education Psychology)
   ☐ Mandate a course-taking sequence (Academy for Creative Media)

b) Enhance learning opportunities
   ☐ Increase course offerings (sections/frequency) (Japanese, Public Health)
   ☐ Increase course repeat limit (e.g., internship, practicum) (Professional Educational Practice)

c) Clearly align the curriculum with the program SLOs
   ☐ Examine curriculum coherence (Second Language Studies)
   ☐ Create/restructure curriculum (Academy for Creative Media)

Students’ out-of-course experience changes

☐ a) Academic advising/mentoring (Education Psychology)
☐ b) Resource materials (handbooks, website) (MBBE)
☐ c) Co-curricular activities (workshops) (Pacific Islands Studies)
☐ d) Financial/career support (Korean, Japanese)

Resource/Personnel

a) Offer professional development (Hawaiian Studies, English, Social Work)

b) Acquire personnel
   ☐ Re-write job description (Dance)
   ☐ Re-assign teaching duty (Atmospheric Sciences)
   ☐ Hire new faculty/TA (Computer Engineering)

c) Acquire new technology/facility/material (Academy for Creative Media)

Assessment Changes

☐ Student learning outcomes (Second Language Studies)
☐ Curriculum Map (Philippine Language & Literature, Nutrition)
☐ Rubrics & data collection (Early Childhood Education)
Best Examples of Use-of-Assessment from the 2015 Assessment Reports

Report features:

- Actions are meaningful for learning improvement. Actions are clearly aligned with the results.
- There is careful deliberation of reasons behind actions.

List of Programs

<table>
<thead>
<tr>
<th>Program Name(s)</th>
<th>Report ID</th>
<th>Assessment</th>
<th>Course</th>
<th>Program</th>
<th>Resource/Personnel</th>
<th>Student Support</th>
<th>Celebration</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Studies (BA)</td>
<td>1561</td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian Studies (MA)</td>
<td>1470</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological Engineering (BS)</td>
<td>1525</td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chinese (BA)</td>
<td>1565</td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication (MA)</td>
<td>1368</td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Computer Engineering (BS)</td>
<td>1514</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Science (BS), Info &amp; Comp Sci (BA)</td>
<td>1425</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creative Media (BA)</td>
<td>1570</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curriculum Studies (MEd)</td>
<td>1388</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Dance (MA, MFA)</td>
<td>1492</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early Childhood Education (MEd)</td>
<td>1360</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Economics (BA)</td>
<td>1365</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Educational Foundations (MEd)</td>
<td>1385</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Program Name(s)</td>
<td>Report ID</td>
<td>Assessment</td>
<td>Course</td>
<td>Program</td>
<td>Resource/Personnel</td>
<td>Student Support</td>
<td>Celebration</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-----------</td>
<td>------------</td>
<td>--------</td>
<td>---------</td>
<td>-------------------</td>
<td>----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Educational Psychology (MEd)</td>
<td>1361</td>
<td>√</td>
<td></td>
<td>√</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational Psychology (PhD)</td>
<td>1532</td>
<td>√</td>
<td></td>
<td>√</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary Education (BEd)</td>
<td>1378</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English (MA)</td>
<td>1410</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English (PhD)</td>
<td>1406</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Epidemiology (PhD)</td>
<td>1409</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Hawaiian (BA)</td>
<td>1553</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hawaiian (MA)</td>
<td>1554</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>History (BA)</td>
<td>1356</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japanese (BA)</td>
<td>1522</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kinesiology &amp; Rehab Sci (BS)</td>
<td>1487</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics (BA, BS)</td>
<td>1469</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical Engineering (BS)</td>
<td>1560</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Molecular Biosciences and Biotechnology (BS)</td>
<td>1531</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Resources &amp; Environmental Mgt (PhD)</td>
<td>1539</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nutrition (PhD)</td>
<td>1369</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pacific Islands Studies (BA)</td>
<td>1572</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pacific Islands Studies (MA)</td>
<td>1571</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

You may use these materials only for nonprofit educational purposes. Please give credit/cite appropriately.
<table>
<thead>
<tr>
<th>Program Name(s)</th>
<th>Report ID</th>
<th>Assessment</th>
<th>Course</th>
<th>Program</th>
<th>Resource/Personnel</th>
<th>Student Support</th>
<th>Celebration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Administration (MPA)</td>
<td>1402</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Health (BA)</td>
<td>1521</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Public Health (DrPH)</td>
<td>1403</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Second Lang Studies (BA)</td>
<td>1481</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Work (BSW)</td>
<td>1508</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Spanish (BA)</td>
<td>1526</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spanish (MA)</td>
<td>1376</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special Education (MEd)</td>
<td>1401</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women's Studies (BA)</td>
<td>1528</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Apply Use of Program Assessment Results in Scenarios

Instruction:

Read the following two program outcomes, activities, and results. Suggest ways for the programs to act upon results.

Scenario 1:
Second Language Studies (BA) 2015 Assessment Report Excerpt (report link, poster link)

Target SLOs Assessed

1. Demonstrate critical thinking and awareness of issues within the context of their professional work and social practice.
4. Critically evaluate and make use of research into the learning, use, structure, and/or pedagogy of second languages.

Description of Assessment Activities

Faculty evaluated students' academic paper in the capstone course using a rubric. The rubric has three levels: Below expectations, Meet expectations, and Exceed expectations.

Results Summary:

SLO 1 Critical Analysis: SLS BA Committee members felt that too many students were below expectations.
Scenario 2:
Educational Psychology (MEd) 2015 Assessment Report Summary

Target SLOs Assessed

1. Educational Psychology graduate students are knowledgeable about learning and development, inquiry methods, and student assessment.
2. Educational Psychology graduate students have inquiry skills to conduct scholarly research effectively.
3. Educational Psychology graduate students present scholarly research effectively.
4. Educational Psychology graduate students model the ethical treatment of research participants.

Description of Assessment Activities

Faculty members rated different components of candidates’ theses and Plan B:

- Literature review for SLO 1: Knowledge
- Methods section for SLO 2: Conduct research
- Presentation for SLO 3: Presentation of research

For SLO 4: Ethical treatment of research participants, faculty members documented whether their advisees successfully completed an on-line course on the ethical treatment of human participants in research.

Results Summary

SLO 1: Knowledge
- All received satisfactory or exemplary ratings for all components.
- 91% exemplary in 3 areas: problem statement, contextualizing the question, incorporating faculty feedback.
- 64% exemplary in 2 areas: organization and APA style

SLO 2: Scholarly Research
- All received satisfactory or exemplary ratings for all components.
- Strongest aspect: description of the participants (100% rated as exemplary)
- 91% exemplary: description of procedures and incorporating feedback from faculty members.
- 73% exemplary: research design.
- 55% exemplary: data analysis

SLO 3: Present Research & SLO 4: Ethics
- All received satisfactory or exemplary ratings for all components.