Program Assessment 101

Academic Programs and Services

Outline of Presentation

1. Brief Information of CQIP
2. Program Assessment Training
3. Program Assessment vs TK 20 Instruction

Summary of UCM's Quality Improvement Program (CQIP)

Program student learning outcomes (SLOs) are established, measurable and externally validated.

- The program faculty use appropriate external groups that possess knowledge of the program and program needs to evaluate SLOs.
  - In the absence of an advisory council, programs may consider program SLOs established by an appropriate professional disciplinary association.
- The program faculty regularly re-validate program SLOs, to help identify changes in student learning needs.
- The program faculty document how the feedback from the validation process is used to redefine and improve program SLOs.

Summary of UCM's Quality Improvement Program (CQIP)

- **ACTION:** Programs need to annually submit meeting minutes from their Advisory Council meeting(s) and/or Faculty meeting(s) that document and describe how program SLOs were validated and changed. These can be entered in the Tk20 Document room. The program can either enter all minutes with the assessment discussion highlighted. Programs may choose to copy and paste the assessment discussion portion of their minutes. If this is done, please ensure dates are included.

Summary of UCM's Quality Improvement Program (CQIP)

The program clearly communicates the program SLOs to students and faculty (especially new faculty) including the manner by which outcomes are integrated into the degree program's curriculum and assessed.

- The program faculty clearly communicates the program SLOs to students in every course through a variety of means including university catalogs, web links, and departmentally approved syllabi.

Summary of UCM's Quality Improvement Program (CQIP)

ACTION: Programs need to annually submit their model syllabi that communicate program SLOs and confirm that program SLOs are communicated in all course syllabi. Programs need to annually submit materials or web links that demonstrate other means of communicating program SLOs (e.g. student handbook, department website, agendas of student orientation activities, etc). This can be submitted to the Document room in Tk20.

Summary of UCM's Quality Improvement Program (CQIP)

The program has an up-to-date curriculum map detailing where program SLOs are introduced, practiced/reinforced, and assessed/advanced and communicates this to students.

- The program faculty regularly analyze the major program offerings and develop or modify a curricular map that identifies the courses in which specific program SLOs are introduced, practiced and assessed and communicates this information to students.

Summary of UCM's Quality Improvement Program (CQIP)

ACTION: Programs need to annually confirm that they have updated their program curriculum map in Tk20 and describe or document how this is communicated to students. The curriculum map will be part of the program's assessment plant in Tk20. Training will be provided on curriculum mapping.

Summary of UCM's Quality Improvement Program (CQIP)

The program regularly performs formative evaluations of student artifacts that indicate students' progress toward satisfactory program completion.

Formative assessment provide students information about how they are doing **before** they reach the end of their program. A good place to think about formative program assessment is at a mid-point in the program.

Summary of UCM's Quality Improvement Program (CQIP)

- **ACTION:** Programs need to annually document that selected program SLOs are assessed by a formative assessment(s)
  - How are SLOs assessed
  - In which courses are SLOs assessed
  - How are students doing on the assessment
  - Are you making changes to: curriculum, pedagogy, assessment methods, etc.
  - This information should be entered into the Tk20 system as part of Measures, Results, and Actions

Summary of Central's Quality Improvement Program (CQIP)

The program regularly performs summative evaluations of student artifacts that demonstrate students' mastery of program outcomes.

Summative assessments provide students information about how they are doing when they reach the end of their program

Summary of Central's Quality Improvement Program (CQIP)

ACTION: Programs need to annually document that selected program SLOs (ideally all outcomes) are assessed by a summative assessment(s)

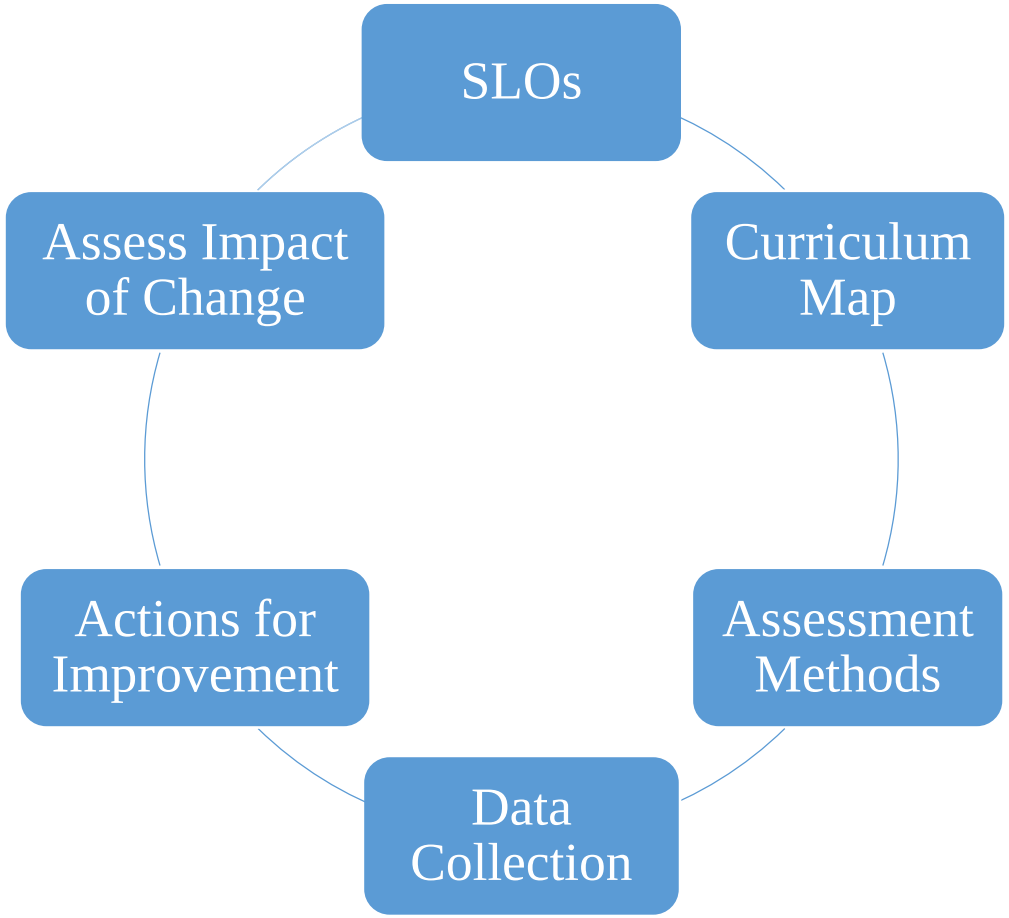
- How are SLOs assessed
- In which courses are SLOs assessed
- How are students doing on the assessment
- Are you making changes to: curriculum, pedagogy, assessment methods, etc.
- This information should be entered into the Tk20 system as part of Measures, Results, and Actions

Why We Assess

Improve student learning

External

Assessment Cycle



Levels of Assessment

Institutional Assessment (Gen Ed Assessment)

Program Assessment (CQIP in Tk20)

Course Assessment

What Do I Do in Tk20 for Program Assessment

Step 1: Student Learning Outcomes (SLOs)

Step 2: Curriculum Map

Step 3: Assessment Methods – Measures and Benchmarks

Step 4: Data Analysis – Results

Step 5: Actions for Improvement

Step 6: Impact of Actions

Step 1: SLOs

- **SLOs** are concrete actions the student should be able to perform as a result of participation the program.
- **SLO formula**: **Action Verb + specialized knowledge, skills and dispositions**
- **Look at the examples and decide the levels of learning**
  - Student will be able to **describe** the problem solving process.
  - Students will **solve** research problems through the application of scientific methods.
  - Students will **analyze** the strengths and weaknesses of empirical research and theories in kinesiology.

Tips for SLOs

- Keep the SLO simple, should be a broad, single and measurable statement.
- Words such as understand, know, or appreciate should be avoided because these are not measurable.
- 3-5 general outcomes for each program – pick most important (exception will be specialized accreditation requirements)

Step 1: Suggested Reviewing SLOs

- Use DQP to update your SLOs and document in meeting minutes.
  - 2015-2016: 15 program revised SLOs.
- Use reference of actions verbs from handouts.

Step 1: SLOs

Questions?

Step 1: Practice (10 minutes)

Review your program SLOs and see what you can improve?

Step 2:Curriculum Map

- The Curriculum Map: A matrix that represents how courses are aligned with program student learning outcomes.
- The purpose of a curriculum map is to assure that all of the SLOs are being addressed somewhere in the required coursework for that program.
- Each program SLOs should have courses to address at **Introduced (I), Reinforced (R)/Practiced, and Assessed (A).**
  - **Introduced**: Provide learning opportunity of new knowledge
  - **Reinforced**: Practice the knowledge from introduced level
  - **Assessed**: Formally assess the SLO and gather data for entry into Tk20

Step 2:Curriculum Map

Below are some possible versions of I,R and A within a program SLO.

Program course	Program SLO1	Program SLO2	Program SLO3
Course 1000	I	I, R	I
Course 2000	I	I, R	R
Course 3000	R	A	R
Course 4000	A	A	A

Step 2:Curriculum Map

Find the mistakes in the sample curriculum map

Program course	Program SLO1	Program SLO2	Program SLO3	Program SLO 4
Course 1	A		R	
Course 2	I		I	
Course 3	R	R		
Course 4				
Course 5		A	A	

Step 2:Curriculum Map

Questions?

Step 2: Practice

Use the sample grid and put your program courses into the appropriate outcomes and level of mastery: I (Introduced), R(Reinforced) or A(Assessed) (5 minutes)

Work in your group and share your curriculum map with your peers and discuss. (10 minutes)

Step 3: Assessment Methods Measures & Benchmarks

- Each program outcome needs to conduct both formative and summative assessment.
- Programs may use a combination of direct and indirect measures to provide a complete picture of student performance.
  - **Direct measures** of assessment indicate the attainment of student learning, knowledge, or skills by **directly observing students' demonstration of knowledge, skills, and learning**.
  - **Indirect measures** of assessment focus on **student perceptions of learning** and often involve surveys, interviews, or focus groups to ask students to self-report or reflect on their learning rather than to demonstrate it.

Helpful hints for Selecting Assessment Methods (Measures and Benchmarks)

- **Choose assessment methods that will provide useful information**

What are the short comings of this example?

  - **Outcome**: Students completing the Hypothetical Engineering program will demonstrate competence in conducting research.
  - **Assessment method** (Measure & Benchmark): 90% of all graduates will successfully complete the Senior Design project. (Benchmark)

- **Choose assessment methods that matches with learning outcomes**

What are the short comings of this example?

Outcome: Students completing our program can explain concepts and theories in our discipline

Assessment method (Measure & Benchmark): Each course requires students to examine different terms, all the embedded questions followed this format: Define four of the following five terms: …….

Helpful hints for Selecting Assessment Methods (Measures & Benchmarks)

- It is up to the program to determine what are acceptable benchmarks for its discipline.
  - Internal benchmark: 75%-80%
  - External benchmark: It is up to program.

Sample SLOs and Measures: Biology-B.S.

Outcome: BS Biology graduates will have attained a broad-based knowledge of Biology that compares favorably to their peers at a national level.

Measure: All (100%) graduates are required to take the national ETS Exam in Biology during their senior year. There are three ETS Exam sessions annually. Fall-graduating seniors take the ETS in the fall, spring-graduating seniors take the ETS in the spring, and summer-graduating seniors will take the ETS in the summer. Overall performance on the exam will be used to evaluate student learning. At least 60% of students will score above the 50th percentile.

Sample SLOs and Measures: Advertising/Public Relations - B.A

Outcome: Students will exhibit the ability to present proposals, plans and strategies in settings appropriate to their career paths.

Measure: Students in the major's capstone course MMC 4411: Advertising Campaigns will complete their final group project assignment and will demonstrate their ability to satisfactorily present proposals, plans, and strategies at a professional-readiness level. Student work will be evaluated by faculty observation utilizing the following 5-point scale (1= ideas were satisfactorily presented; 2= ideas were satisfactorily presented and visually enhanced; 3= ideas were satisfactorily presented, visually enhanced, and point clearly articulated; 4= ideas were satisfactorily presented, visually enhanced, point clearly articulated, objectives were stated and met; 5= ideas were satisfactorily presented, visually enhanced, point clearly articulated, objectives were stated and met with a high degree of quality). A minimum of 75% the projects will score a 3.0 or higher.

Step 3: Assessment Methods Measures & Benchmarks

Questions?

Step 3: Practice

Have a look at the handout and decide the sample methods good for formative or summative, and direct and indirect assessment (5 minutes)

Step 3: Practice

10 minutes Break

Step 4: Data Collection, Analysis and Results

Course	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6
1000	I	I		I		I
1000		I	I	I	I	
2000	I		I	I		I
2000		I		I	I	
3000	R	R		R		R
3000		R	R	R	R	R
4000		A		A	A	
4000	A	A	A	A	A	A

Step 4: Data Collection, Analysis and Results

Course	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6
1000	I	I		I		I
1000		I	I	I	I	
2000	I		I	I		I
2000		I		I	I	
3000	R	R		R		R
3000		R	R	R	R	R
4000		A		A	A	
4000	A	A	A	A	A	A

Step 4: Practice (10 minutes)

Use your curriculum map to decide on assessment

- Where should formative assessment occur?
- Where should summative assessment occur?
- What will be your measures and benchmarks for these assessments?

Step 4: Data Collection, Analysis and Results

- You must analyze your data!!! → Course-embedded assessment
- Analyzing quantitative data: Use both numbers and percentages
  - Percentages are easier to understand and more meaningful than raw numbers. Percentages make it easier to compare groups of different sizes, e.g., when you compare your current class again a class four years ago or against peers at other schools.

Step 4: Data Collection, Analysis and Results

- Analyzing qualitative data: Qualitative results from reflective writing, open-ended survey questions, and focus group transcriptions can be summarized through grouped listings and thematic analysis.

What was the one thing that was most useful for you to learn in this session?

Interaction with peers (five comments)

- Discussing with peers
- Learned from classmates
- It was helpful interacting with each other.
- Different perspectives within group discussions
- Group work on topics

Teacher presentation (three comments)

- Lecture on subject matter
- Examples of practical implications
- The PowerPoint slides are really helpful.

General (two comments)

- A great learning atmosphere
- Interesting topics

Step 4: Data Collection, Analysis and Results

Presenting analysis

- Tables and graphs are useful in presenting analysis because they focus attention to specific results.
- When sharing the results of program assessment, it may be useful to align assessment results with any program outcomes and discuss the implications of the data as they relate to the program outcomes.

Step 4: Data Collection, Analysis and Results

- **Presenting analysis examples: Good, Better and best?**

Students meeting or exceeding the performance standard for ethical reasoning
35

Students meeting or exceeding the performance standard for ethical reasoning		
Below standard	Met standard	Exceeded standard
5	20	15

Students meeting or exceeding the performance standard for ethical reasoning		
Below standard	Met standard	Exceeded standard
12.5% (5)	50% (20)	37.5 % (15)

Step 4: Data Collection, Analysis and Results

Writing the assessment results

- How data were collected and who collected it e.g. all sections of Econ 1010
- Interpretation
- Connecting findings to program learning outcomes

Step 4: Examples

Communication M.A.

Assessment method: 90% of students will demonstrate satisfactory or above satisfactory knowledge of quantitative research methods. A 3 member faculty panel will judge comprehensive exams rating them as above satisfactory, satisfactory, or unsatisfactory.

Results: 2009-10, of 21 students 5 scored above satisfactory, 8 satisfactory, and 8 unsatisfactory. Only 62% of students were rated satisfactory or above, far short of the 90% goal.

Step 4: Examples

Public Administration, B.A./B.S.

Assessment Method: Survey was sent to graduating seniors asked if they "are able to identify and discuss the major fiscal issues and the administration of revenue and expenditures."

- **Benchmark**: 80% of students should indicate they "agree" or "strongly agree" with this statement.
- **Results:** 77.2% (n=44) of respondents "agreed" or "strongly agreed" with this statement. Open-ended survey responses did not provide written explanations indicating why the goal was not met.

Step 4: Data collection, analysis and results

Questions?

Step 5: Actions for Improvement

- **Share assessment results** with all program faculty and discuss them together, so that any changes can be decided on collectively.
- **Develop a timetable** for implementing changes and for following up to see if the change had the intended effect.
- **Decide** on the program's focus for the **next assessment task**.
- Look at **the most positive results** and consider **what practices** may have contributed to these results.
- Look at **the least positive results** and consider what change in practice might **remedy** the situation.

Step 5: Actions for Improvement

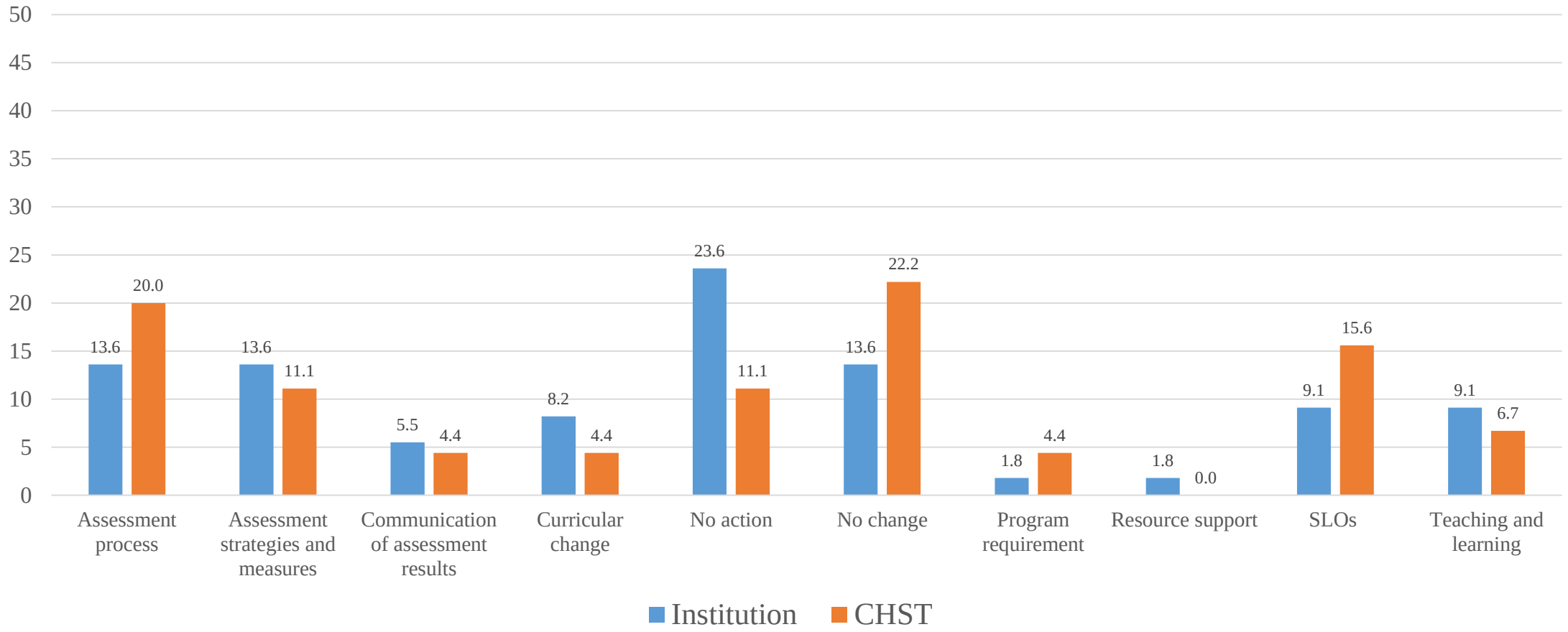
Examples of Types of Actions that Can Be Taken

Process-based: Change your **process of assessment** such as your assessment measures or the sample you are using →**Have indirect impact on program quality**

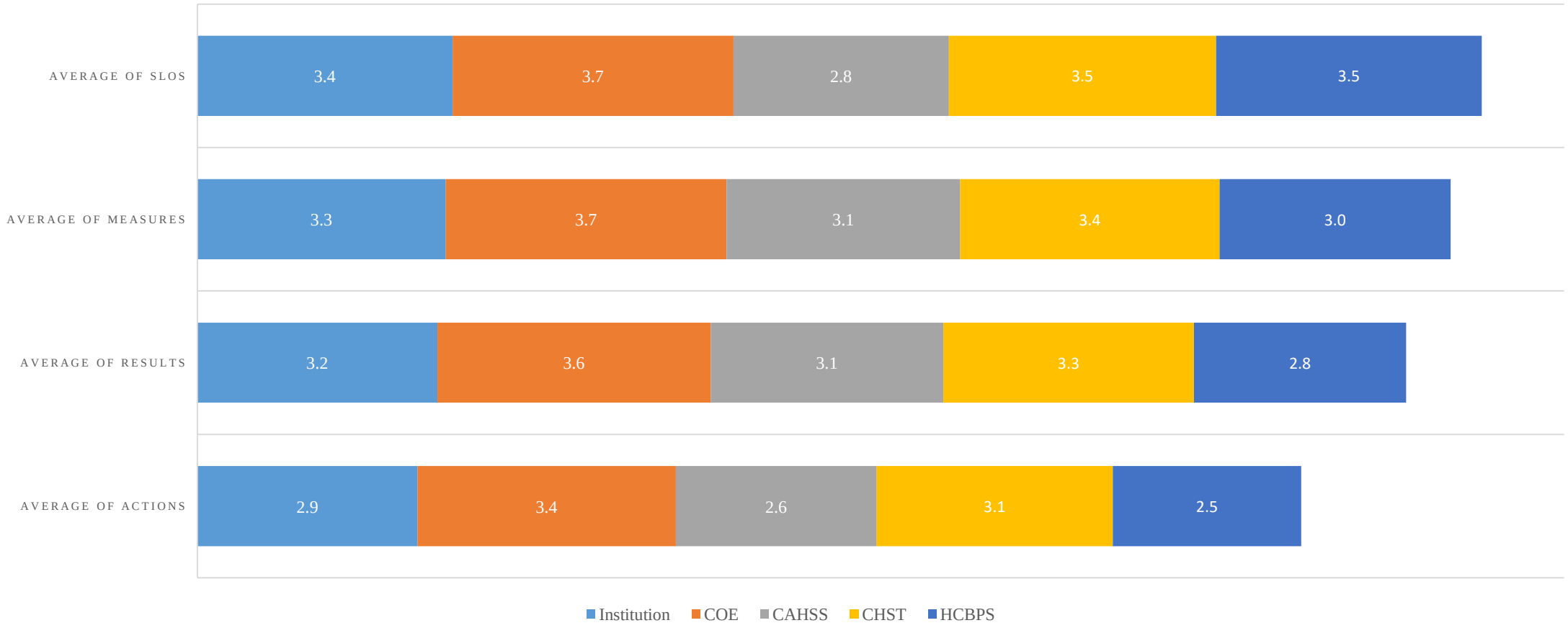
Finding-Based: Make changes based on the **evidence of student learning→ Have direct impact on program quality**

- **Curricular changes**: Adding, deleting a course or change in the curriculum map.
- **Teaching and learning**: Revise/Modify the content of a course, pedagogy (delivery methods) or learning activities

ACTIONS FOR IMPROVEMENT - CHST 2015-2016



AVERAGE SCORE OF PROGRAM ASSESSMENT RUBRIC-INSTITUTION & COLLEGE



Step 5: Actions for Improvement

Have a look at the handout for examples of actions for improvement

Have a look at the handout for examples of assessment reports

Step 5: Actions for Improvement

Questions?

Step 6: Impact of Actions

You have just determined your action, so it is too early to know what the impact of these actions will be. What do we do?

- Put in place for a year and monitor
- At end of year, assess your action(s)
- What happened to student learning relative to your previous results. (Higher, lower, no change)

Step 6: Examples

- **Mechanical Engineering M.S.**
- **Assessment Method:** Graduates will demonstrate competence in research. Data were obtained from Committee Check Sheets completed by the committee members for students defending their research thesis (writing skills) and by the faculty teaching EML 6085, Research Methods (presentations skills) for students in the Non-Thesis option.
- **Measure:** Percent of students rated as “high” on a check sheet rating scale of “high,” “medium” or “low.

Step 6: Examples

Year	Faculty Committee (thesis)	EML 6085 Research Methods (Non-thesis)
2014-2015	66.7%	82.3%
2013-2014	60%	61.3%
2012-2013	35.7%	57.6%

Step 6: Examples

- **Action Taken or Strategy implemented**: Implemented zero credit EML 5090 MAE Seminar Series and MAE Research Day to help graduate students in the MAE department practice public speaking, learn skills of scientific communication, expand width of knowledge, and promote collaborations.
- **Improvement:** The addition of a special topic on oral presentation skills and asking students to present short talks contributed to the three-year improvement trend above.

Step 6

Questions?

Program Assessment vs TK 20 Instruction

Assessment Website

Program Assessment vs TK 20 Instruction

Questions?

If you have any questions or need to have a follow up support, please contact

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Thank you for your participation!