



Student Surveys: Perceptions of Achievement

Facilitated by the Assessment Office

December 2010

Assessment Office

- Faculty managed
- Mission: improve student learning through program assessment
- Collaborate with faculty, staff, and administrators
- Workshops, consultations, events, website



Workshop Outcomes

At the end of the workshop, you will

1. understand the circumstances in which a survey is appropriate in program assessment
2. be able turn a program learning outcome into a survey question





Purpose of Program Assessment

Program
Assessment



Program Evolution
or Improvement

Program
Assessment



Individual
Course
Assessment



“Direct” and “Indirect”

- “Direct” evidence of student learning
 - Student products, behavior
 - Reveals **what** students know and can do

- “Indirect” evidence of student learning
 - Student perceptions, self-reports
 - Can reveal **beliefs** about what was learned and **why** learning did/did not occur

SURVEYS



Steps

1. Identify what you want to learn
2. Think about how you will use the results
3. Create the survey
4. Pilot test the survey
5. Distribute survey
6. Analyze data and use the results





Example SLOs (engineering)

At the time of graduation, students can

- design a system to meet desired needs within realistic constraints
- function on multi-disciplinary teams
- communicate effectively
- engage in life-long learning



Step 1: Identify what you want to learn

Example

- Are students confident in their ability to
 - design a system
 - function on multi-disciplinary teams
 - communicate effectively
 Why or why not?
- Do students embrace the values of our profession? Do they embrace life-long learning?



Step 2: How might the results be used?

What you want to learn

- Are students confident in the skills and abilities we said are important?
- Do students embrace the values of our profession?

Possible actions

- Reevaluate course sequencing
- Consider how outcomes are emphasized in the program
- Discuss where and how professional values are infused in the curriculum
- Celebrate successes and put in program brochure





Step 3: Create survey

- **Closed-ended** questions provide answer choices

I am confident in my ability to function on a multi-disciplinary team.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- Unsure



Step 3: Create survey

- **Open-ended** questions allow the respondents to write their own answers

How can an engineer engage in life-long learning?



Your turn:

1. Identify what you want to learn
2. Create two survey questions
3. Evaluate your survey questions
4. Pilot test your questions with a partner





Step 4: Pilot test

- Are the instructions clear?
- Are the questions clear?
- Can the questions be interpreted in different ways?
- How long does it take to complete the survey?



Step 5: Distribute Survey

Paper when . . .

- Students physically present and no laptop, smartphone, computer
- Online survey fatigue may exist
- Online survey software too cumbersome to learn or use

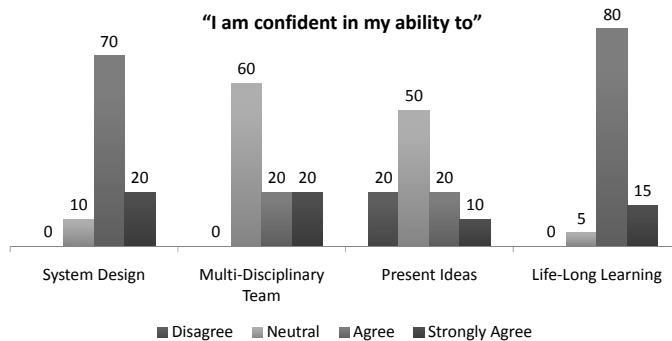
Electronic/online when . . .

- Students physically present and they each have laptop, smartphone, computer
- Anonymity will encourage more honest answers
- Many open-ended questions
- Lengthy open-ended response desired
- Skip patterns are desired



SurveyShare (UH site license), Survey Monkey, Constant Contact, UHM's OVCAA software in development

Step 6: Analyze data & use results



Note: There were no "Strongly Disagree" or "Unsure" responses

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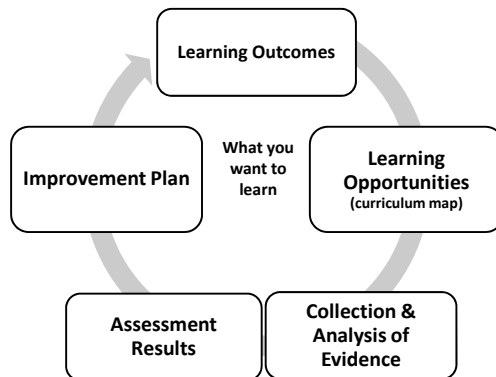
Final tip:

Ask yourself:

- What do I want to **learn**?
- Does the survey question shed light on what I want to learn?
- What will I **do** with the survey responses?



Recap



Wrap-Up

- Questions?
- Evaluation
 - Please complete the Workshop Evaluation Form
- Tomorrow's Workshop
 - *How to Use Course Assignments/Exams for Program Assessment*





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Student Surveys: Perceptions of Achievement Example

Program SLOs (engineering)

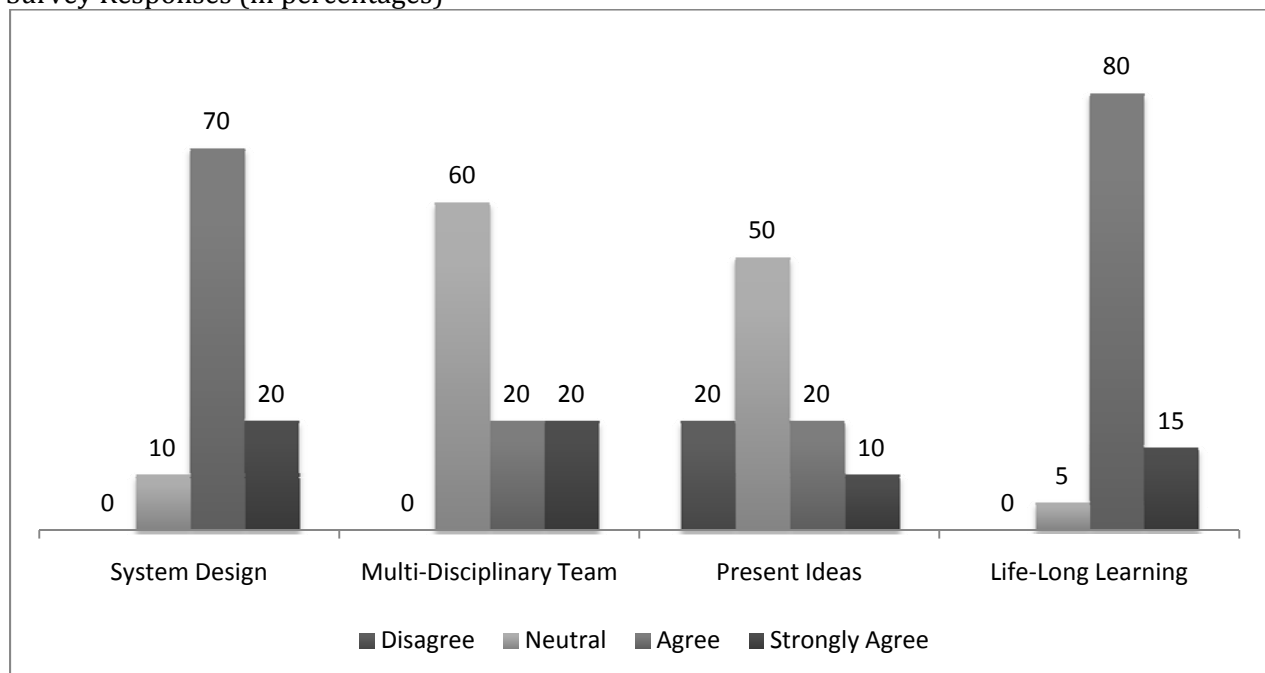
At the time of graduation, students can:

- Design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability
- Function on multi-disciplinary teams
- Communicate effectively
- Recognize the need for, and an ability to engage in life-long learning
- Apply knowledge of mathematics, science, and engineering
- Design and conduct experiments, as well as analyze and interpret data
- Understand professional and ethical responsibility

Please indicate your level of agreement or disagreement with each statement.

I am confident in my ability to	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Unsure
- design a system to meet desired needs within realistic constraints	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
- function on multi-disciplinary teams	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
- present ideas to a client group	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
- engage in life-long learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Survey Responses (in percentages)



Note: There were no "Strongly Disagree" or "Unsure" responses

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Student Surveys: Perceptions of Achievement
Your Turn

1. Using your own program's SLOs or ones in the example, identify what you want to learn
2. Using your own program's SLOs or ones in the example, create two survey questions.
3. Evaluate your survey questions using the "Hints & Tips" handout
4. Mock up your own results or use the example results. How could these results be used?



Student Surveys: Perceptions of Achievement Useful Answer Categories

If you want to know how often something occurs, ask for the exact number of times or ask, “how often...” and choose from the following categories:

Never	Almost Never	Never
Rarely	Occasionally	Almost Never
Occasionally	Sometimes	Sometimes
Regularly	Often	Fairly Often
Don't Know	Don't Know	Very Often

Never	Hardly Ever	Not At All
Rarely	Rarely	Occasionally
Sometimes	Sometimes	Frequently
Most of the Time	Often	
Always	Very Often	

If you want to find out the degree of people’s feelings, their attitude, or belief, ask “to what extent...” and choose from the following categories:

Not Very Effective	Not Very Prepared	Very Dissatisfied
Somewhat Effective	Somewhat Prepared	Dissatisfied
Moderately Effective	Uncertain	Neutral
Very Effective	Moderately Prepared	Satisfied
Not Sure	Well Prepared	Very Satisfied

Strongly Disagree	Very Poor	Needs Work
Disagree	Poor	Good
Neutral	Fair	Excellent
Agree	Good	
Strongly Agree	Very Good	

If you want to find out about people’s intentions or aspirations ask, “do you expect to...” and ask them to choose from the following categories:

Definitely No	No Chance
No	Very Little Chance
Uncertain	Unsure
Yes	Some Chance
Definitely Yes	Very Good Chance

Sources consulted:

Kiernan, Nancy Ellen (2004). *Useful Categories: Tipsheet #44*, University Park, PA: Penn State Cooperative Extension.
Henning, Gavin. *Ordered Response Options*. Dartmouth College.

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Student Surveys: Perceptions of Achievement Hints & Tips

General Tips

1. Identify what you want to learn.
2. Skip “wouldn’t it be nice to know” questions. Only include questions that directly shed light on what you want to learn.
3. If you are not sure how or if you will use the survey responses, do not ask the question(s).
4. Do all respondents have access to the information needed to answer the question?
5. Are the questions ones which all respondents will be willing to answer?

Question Construction

6. One issue, skill, ability per question. Split “double-barreled” questions into two questions
 - **Problematic:** I am confident in my ability to design a system, component or process.
 - **Better:** I am confident in my ability to design a system.
7. Avoid double negatives
 - **Problematic:** I am not incompetent when I am part of a multi-disciplinary team
a) Strongly Disagree b) Disagree c) Neutral d) Agree e) Strong Agree
 - **Better:** I am competent when I am part of a multi-disciplinary team
a) Strongly Disagree b) Disagree c) Neutral d) Agree e) Strong Agree
8. Make questions as specific and concrete as possible
 - **Problematic:** I am confident in my ability to communicate effectively
 - **Better:** I am confident in my ability to speak to large groups of engineers

Response Construction

9. Response alternatives should be exhaustive and mutually exclusive
 - **Problematic:** How many articles have you submitted while in the program?
a) 1 b) 2 b) 2 or more
 - **Better:** How many conferences did you attend this semester?
a) 0 b) 1 b) 2 c) 3 or more

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10. Used balanced scales (i.e., equal number of positive and negative response options)

- **Problematic:** I am a lifelong learner.

1	2	3	4	5
Strongly Disagree		Agree		Strongly Agree

- **Better:** I am a lifelong learner.

1	2	3	4	5
Strongly Disagree		Neutral		Strongly Agree

Pilot Test

11. Take the survey yourself

12. Have someone similar to the target group take the survey and ask him/her:

- * Are the instructions clear?
- * Are the questions clear?
- * Can the questions be interpreted in different ways? How did you interpret the questions?
- * Do the response options allow you to accurately answer the question?
- * Can the questions be answered? Will survey takers have the requested information at their fingertips when they take the survey?
- * How long does it take to complete the survey?

If in doubt, ask yourself:

- * *What do I want to learn?*
- * *Does the survey question shed light on what I want to learn?*
- * *What will I do with the survey responses?*