

Data Analysis Insights Chart

A data analysis insights chart can help you use your assessments to identify next steps. Here's an example:

What were you assessing?	What was your assessment method?	What were the results?	What did you learn?	What are your next steps?
Mastery of Learning Outcome #3	25 multiple-choice questions 2 open-response questions	85% of students scored \geq 85% on MC. 45% of students correctly answered the open-ended response questions.	Student recall of fact-based knowledge is strong. Fewer than half of the students were able to apply this knowledge in the open-ended portion of the assessment.	Focus on application of knowledge by creating real-world and relevant problems that require students to apply concepts. Use the active learning structure/analytic teams to have students work on problems in small groups. Assign a similar problem set for weekly homework.

What concept, learning objective, skill, or content was the focus of this assessment?

This instructor identified two different methods: multiple-choice and open-response.

The instructor noticed that students performed quite well on the multiple-choice questions and was aware that these questions were mostly basic recall of facts. However, the performance of the students on the open-ended response would indicate that they were not able to consistently apply this knowledge in a real-life situation.

Listing the results of the two different assessment methods helped the instructor notice that student performance between the two sections was markedly different.

For this class, the instructor will adjust her instruction to focus on the application of knowledge by providing more tasks that require critical thinking and application.

Securing Student Feedback

The feedback students can provide on your instruction and the usefulness of class activities can be valuable in helping you improve and refine your teaching. By soliciting midsemester feedback, you can also make adjustments to your instruction and course activities while there is still time to meet student needs.

Before asking students for feedback on your teaching by using any of the following techniques, take the time to teach students about the importance of an honest critique as opposed to criticism. Modeling constructive feedback throughout the course when evaluating students' work will help them in providing beneficial critiques.

Suggestions for Designing Feedback Forms

1. Limit the number of questions.
2. Ask for feedback multiple times but not all the time.
3. Assess learner reactions to class activities and assignments.
4. Include both multiple-choice and open-ended questions.
5. Ask questions that assess teaching performance.
 - Example: What would you like the teacher to do that would facilitate your learning?
6. Provide these directions to students:
 - Give specific examples.
 - Focus on observable behaviors.
 - State alternatives and preferences.

The following techniques have been found to be helpful in gathering student feedback.

Stop-Start-Continue: Invite students to respond to questions in the Stop-Start-Continue format. By midway through the term, students are able to provide feedback about their learning experiences. Ask them to list anything they wish would be stopped in class. Examples can include the use of certain materials, activities, instructor behaviors, etc. Then have them post anything they think should start—for example, more time for discussion, papers being returned more quickly, or opportunities to earn bonus points. Finally, ask them to describe what is working well and should be continued. Collect students' responses and follow up with students as soon as possible to let them know what you learned from the feedback and what you intend to do with the feedback. (See the Instructor Resources in this module for a Stop-Start-Continue handout you can distribute to students.)

Point-of-View (POV) Postcard: Ask students to send an email at any time during the first half of the term with their point of view about the class. Assign a grade to make it clear this is an assignment. Suggest a prompt such as “I have learned the most in class when we...” or “My learning in this class could be improved by...”

Assignment Analysis: Ask students to provide feedback on individual assignments using an assignment analysis chart. (See the Instructor Resources in this module to download this chart.)

Small-Group Instructional Diagnosis (SGID) Sessions: SGID is a structured process for conducting a midterm evaluation. Joseph Clark and Mark Redmond designed the method in which an outside facilitator “takes student through a series of questions about the course, individually and in small groups” (University of Northern Iowa, n.d.). Four questions are suggested:

- What do you like most about this course so far?
- What do you like least about the course so far?
- What suggestions do you have for your instructor to improve your learning experience in this course?
- What might you do to improve your own learning experiences and those of other students in this course?

Read more about SGID on the University of Northern Iowa’s website at <http://www.uni.edu/provost/cetl/small-group-instructional-diagnosis>.

Stop–Start–Continue

Instructions: Invite students to respond to questions in the Stop-Start-Continue format. By midway through the term, students are able to provide feedback about their learning experiences. Ask them to list anything they wish would be stopped in class. Examples can include the use of certain materials, activities, instructor behaviors, etc. Then have them post anything they think should start—for example, more time for discussion, papers being returned more quickly, or opportunities to earn bonus points. Finally, ask them to describe what is working well and should be continued. Collect students' responses and follow up with students as soon as possible to let them know what you learned from the feedback and what you intend to do with the feedback. (See the following page for a template).

Course: _____ Instructor: _____

Stop	Start	Continue
What do you wish we would stop doing in class?	What do you think we should start doing in class?	What is working well and should be continued?

Assignment Analysis

Please provide feedback on the following assignments.

Assignment	Time spent on the assignment	Were the directions clear?	Were the evaluation criteria clear?	How much did you learn?	Suggestions for improvement
		<input type="checkbox"/> Yes <input type="checkbox"/> No Suggestions:	<input type="checkbox"/> Yes <input type="checkbox"/> No Suggestions:	<input type="checkbox"/> I learned a lot. <input type="checkbox"/> I learned quite a bit. <input type="checkbox"/> I learned a little bit. <input type="checkbox"/> Not sure of the purpose of this assignment	
		<input type="checkbox"/> Yes <input type="checkbox"/> No Suggestions:	<input type="checkbox"/> Yes <input type="checkbox"/> No Suggestions:	<input type="checkbox"/> I learned a lot. <input type="checkbox"/> I learned quite a bit. <input type="checkbox"/> I learned a little bit. <input type="checkbox"/> Not sure of the purpose of this assignment	
		<input type="checkbox"/> Yes <input type="checkbox"/> No Suggestions:	<input type="checkbox"/> Yes <input type="checkbox"/> No Suggestions:	<input type="checkbox"/> I learned a lot. <input type="checkbox"/> I learned quite a bit. <input type="checkbox"/> I learned a little bit. <input type="checkbox"/> Not sure of the purpose of this assignment	
		<input type="checkbox"/> Yes <input type="checkbox"/> No Suggestions:	<input type="checkbox"/> Yes <input type="checkbox"/> No Suggestions:	<input type="checkbox"/> I learned a lot. <input type="checkbox"/> I learned quite a bit. <input type="checkbox"/> I learned a little bit. <input type="checkbox"/> Not sure of the purpose of this assignment	

Organizing Your Data

Organizing the results of an assessment or midsemester feedback will make it much easier to analyze and identify next steps.

Begin by determining the type of data you are analyzing, quantitative or qualitative. Most results of quantitative student work can be summarized with simple tallies and percentages. Tallies are counts of how many students earned each rating or chose each option. You can tally the number of students who

- Earned a particular grade or score
- Got a particular question correct
- Chose each option in multiple-choice questions

It is helpful to translate tallies to percentages, as it makes it easier to compare groups of different sizes. This allows you to compare different sections of the same course within a year or the results of a course from year to year. Percentages also makes it easier to compare student answers to different questions on assessments to identify strengths and weaknesses (Suskie, 2009, p. 255).

Example:

Course: <i>Basic Statistics</i>			
Assessment: <i>Basic Statistical Operations</i>			
Date Given: 3/02/16			
# of Completed Assessments: 50			
Question #	Learning Objective #	Tally of Correct	Percentage of Correct
1	1	45	90%
2	1	35	70%
3	1	32	64%
4	2	28	56%
5	2	25	50%
6	2	40	80%
7	3	25	50%
8	3	23	46%
9	3	16	32%
10	3	45	90%
Summary LO #1:		112/150 = 75%	
Summary LO #2:		93/150 = 62%	
Summary LO #3:		109/200 = 54%	

This chart organizes a 10-question assessment covering three learning objectives. The instructor chose to count the number of students (out of the 50 students who took the assessment) who answered the question correctly. She then converted this to a percentage. This allows the instructor to identify questions that were most problematic for the students. In this instance, only 32% of the students answered question 9 correctly. This may indicate a need to reteach that concept, or it could also indicate that the question and/or answer choices were unclear.

The bottom of the chart summarizes the results by learning objective. The total number of correct responses to questions assessing LO #1 was 112. Because there were 150 possible responses (3 questions times 50 students), we divide 112 by 150 to get an overall average of 75% for Learning Objective #1. By organizing the data in this manner, we can see that Learning Objective #3 (at 54%) may need additional focus and reteaching.

Qualitative Summaries, including such responses as open-ended text-based results, reflective writing, open-responses questions, etc., can be summarized through quick read-throughs and grouped listings.

Quick Read-Throughs: Quickly read through the responses for general impressions. If you have too many responses to read through them all, read a random sample. To be sure you are getting a wide range of results, divide the student response into a score band and select a particular percentage from each score band to read.

Grouped Listing: If your qualitative assessment or assignment is composed of brief statements that fall into reasonably discrete categories, you may wish to list the results in grouped categories. This technique allows you to identify trends in the data.

For example:

Question: What was one thing you learned in this module that was most helpful?	
Summarizing Results <i>Tallying</i> <i>Percentages</i> <i>Summarizing Qualitative Data</i>	Gathering Feedback From Students <i>Stop-Start-Continue</i> <i>POV Postcards</i>
Creating an Instructional Plan <i>Listing strategies aligned to data analysis</i>	

In this example, the instructor can see that tallying results and the POV postcards were most helpful to many students, while summarizing qualitative data was seen as helpful by only one student.