

Building an Assessment Instrument in 10 minutes

SLOAC WORKSHOP

February 6, 2009

*Office of Planning, Research & Student Success
Cañada College*

Workshop Summary

1. The motivation behind SLOs
2. Definitions and distinctions
3. Crafting your first SLO
4. Building your own SLO assessment tool
5. Questions / Open Discussion

The Motivation for this Workshop

- SLOs are not a fad but a deliberate and system wide shift in the way we approach teaching
- The SLO movement was inspired by advances in learning and behavioral psychology
- SLOs are endorsed by the State's Academic Senate
- Systematic adoption of an SLO Assessment model is explicitly mandated by ACCJC

The SLO Paradigm Shift

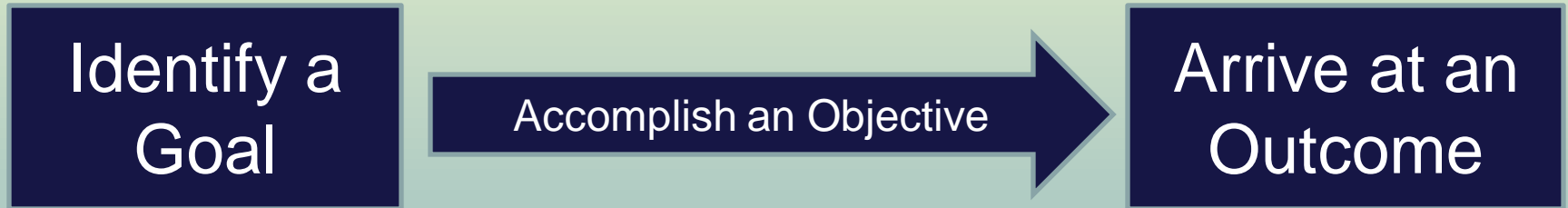
- **Teacher's Role:** move from presentation to exploration of student ideas, involving them in the exploration.
- **Student's Role:** more active, realizing that learning depends on readiness to express & discuss, not spotting the right answers.

Teachers spend more effort on *framing questions* to explore issues critical to the development of students understanding.

Lets make some distinctions

- **Course Goals** – Generally the purpose of the course: to help students acquire & retain the relevant disciplinary knowledge, teach them to think/apply this knowledge and stimulate them to continue learning in the field.
- **Course Objectives** – Usually a list of specific objectives detailing course content & activities: discuss topic A, describe the cause & consequence of phenomena B, etc.
- **Course SLOs** – The outcome that describes what students will do at the end of the lesson/course: be able to analyze a specific problem, determine the appropriate response to the problem and write a prescriptive policy addressing the broader scope of the problem.

Or more simply

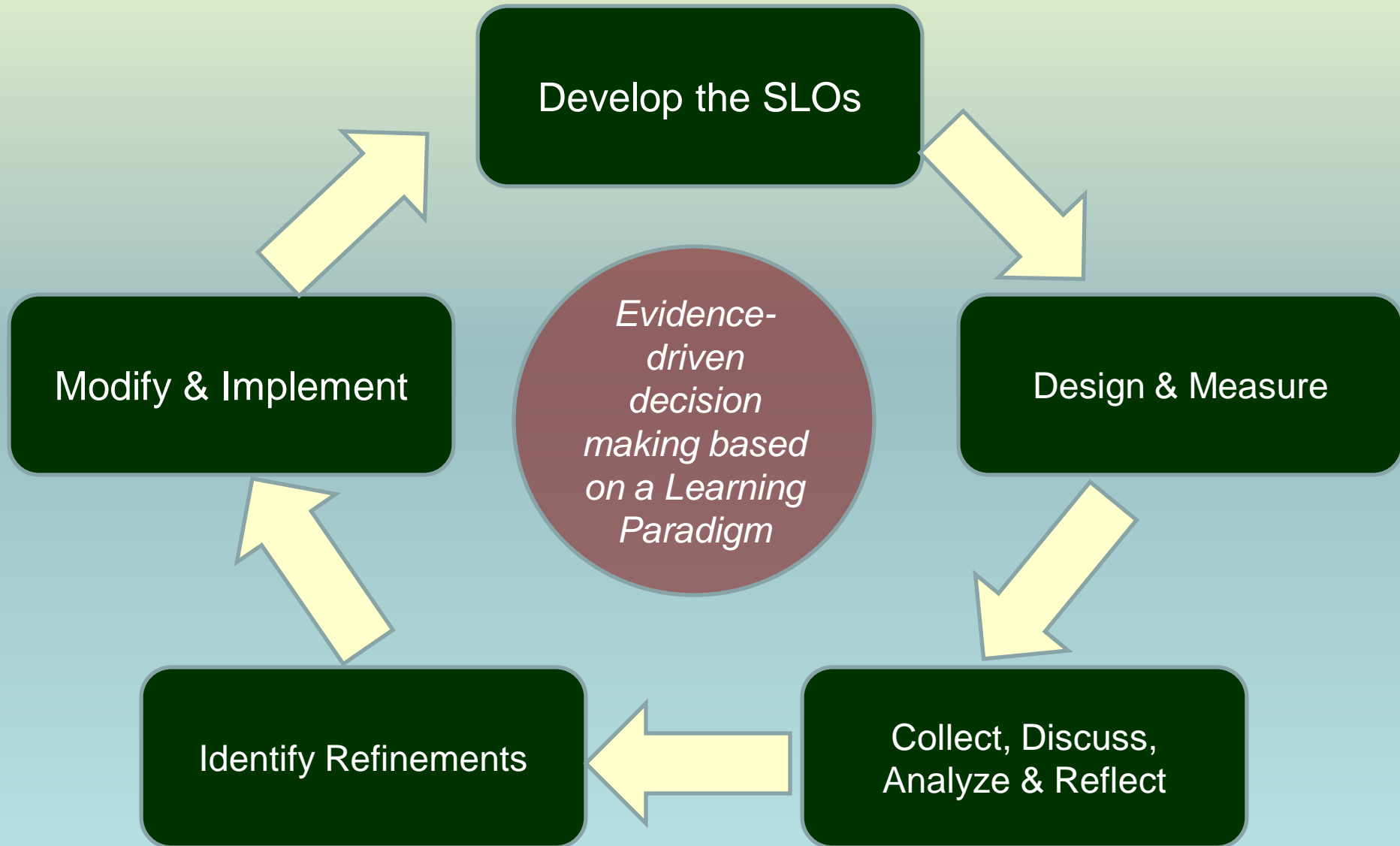


Goals – Where you want to go

Objectives – how you get there

SLOs – proof that you have arrived

The SLO Assessment Loop



Crafting your first SLO

Crafting your first SLO

1. Most Important: Don't try to develop them in isolation – bounce ideas of your colleagues & other content experts.
2. Imagine a real world scenario setting up an expression of learned behavior
 - A dialog response you would like your student to give to a current event question
 - A thoughtful critique on public statement
 - Application of a skill, problem identification, solution framing, strategy formation, etc.
3. Don't reinvent the wheel – there are a wealth of resources & references

Stuff you already know...

- 1. Think about word choice** (action verbs, descriptive & meaningful adjectives)
- 2. Revisit Blooms Taxonomy** (evaluation, synthesis, analysis, application, comprehension, knowledge)
- 3. Consider the learning outcome domains** (cognitive, psychomotor, affective)

But don't over burden yourself. The SLO process is iterative. Your first SLO will not be perfect. You will be making changes.

Most SLOs are “behavioral” goals that state outcomes a student should be able to demonstrate at the end of a course

SLOs are not statements about what is covered in a course. The following are not student learning outcome statements:

- Students will write three papers in the course.
- The course offers students the opportunity to exercise their critical thinking skills.
- Student will be exposed to a wide range of theories currently practices in the field.

An SLO includes:

- The specific knowledge, skills, or attitude students should be able to demonstrate at the end of the course
- Simple, specific action verbs that lend themselves to measurement

Verbs are crucial to writing effective learning outcome statements. Concrete verbs are better than vague verbs. “Define” is better than “be familiar with”; “apply” is better than “know.”

A few examples

A poor Learning Outcome Statement:

- This is poor because it states neither what schools of thought or what information about each school students should know

“Students should know the primary schools of thought in economics ”

Better Learning Outcome Statement:

- Better but it still does not identify what students should know about each school of thought or how deeply they should understand the differences between them.

“Students should understand the differences between the Classical , Keynesian, Neoclassical & Austrian schools of thought in economics

Best Learning Outcome Statement:

- The target is very explicit and it sets up the development of a reasonable standard against which faculty can assess the performance of each student

“Students should be able to recognize & articulate the foundational assumptions, central ideas & dominant criticisms of each the Classical , Keynesian, Neoclassical & Austrian schools of thought in economics

Building an Assessment Tool

Building an Assessment Tool

When SLOs are well written the method or tools for assessment become clear.

One size does not fit all.

It can be helpful to begin by developing a basic understanding of:

- Types of tools available
- The nature of data
- The process to select appropriate tools
- The tools ability to measure, assess & describe SLOs

Generating Quality Evidence

The characteristics of *Quality Evidence*

Quality Evidence / Data must be:

1. **Valid** - the data represent what you want to measure
2. **Reliable** - the data can be reproduced
3. **Authentic** - the assessment simulates real-life circumstances
(no simplistic substitutes or proxy metrics)
4. **Relevant** - the data answer important questions
5. **Effective** - the data contributes to improvements in learning

Now the SLO information you capture must be transformed into a dataset to leverage the power of the assessment cycle

Wait a minute! Hold the phone ! what did he just say: our SLO information is to be transformed into a dataset ?!?!



Me: gulp...

You:

- “Is he serious ?”
- “I don’t have time to mess around with that nonsense !”
- “Does he have any idea how much time I spend on grading ?”
- “A dataset, like with numbers in it? Yep, you can forget that !”

Keeping it very simple

The costs to you:

- This won't require a huge time investment
- After this workshop you will be able to setup your assessment dataset in 10 minutes

And what is gained for that time investment:

- A guarantee that you have a simple tool that will yield valuable insights about your students, your classroom, and your teaching methods
- We can get those Accreditation folks off our backs

Overview of several types of scoring methods

- 1. Checklists**
- 2. Multiple choice test**
- 3. Rubric methods**
- 4. Surveys**

Let's start with the most straight forward methods

Methods #1 & #2: Multiple Choice Exams & Checklists

- A set of individual criteria i.e. questions you develop to gauge progress in specific areas
- Each criteria represents an element of the SLO
- For each individual criteria, **success is all or nothing, it's either a success or not**
- The list, comprehensively, is the assessment vehicle for a single SLO

Let's look at an example....

Checklist SLO

SLO CRITERIA	<i>Student Achieved Objective</i>
Chooses and narrows a significant topic appropriate for the audience and occasion	√
Communicates thesis/specific purpose to audience in a clear manner	
Balances purpose, and occasion with audience needs and expectations	
Provides a clear, easily identified organization appropriate to topic, audience, purpose and occasion	√
Demonstrates appropriate understanding of the topic, discipline, or genre	√
Provides appropriate supporting evidence	
Uses language appropriate to the audience and occasion	
Uses vocal variety (pitch, pace, inflection, volume)	
Uses physical behaviors (gestures, postures, movement, eye contact) that support the verbal message	√
Uses visual aids, when appropriate, to provide useful illustrations or examples	√
Others...	

Method #2: Rubric Methods

- A set of criteria you develop to gauge progress in specific areas
- Each criteria represents an element of the SLO
- For each criteria, **success is scored against a performance scale**
- The list, comprehensively, is the assessment vehicle for a single SLO

Let's look at an example....

Rating scale example

CRITERIA	<i>Not Satisfactory</i>	<i>Minimally Satisfactory</i>	<i>Satisfactory</i>	<i>Highly Satisfactory</i>	<i>Not Applicable</i>
Chooses and narrows a significant topic appropriate for the audience and occasion	1	2	3	4	NA
Communicates thesis/specific purpose to audience in a clear manner	1	2	3	4	NA
Balances purpose, and occasion with audience needs and expectations	1	2	3	4	NA
Provides a clear, easily identified organization appropriate to topic, audience, purpose and occasion	1	2	3	4	NA
Demonstrates appropriate understanding of the topic, discipline, or genre	1	2	3	4	NA
Provides appropriate supporting evidence	1	2	3	4	NA
Uses language appropriate to the audience and occasion	1	2	3	4	NA
Uses vocal variety (pitch, pace, inflection, volume)	1	2	3	4	NA
Uses physical behaviors (gestures, postures, movement, eye contact) that support the verbal message	1	2	3	4	NA
Uses visual aids, when appropriate, to provide useful illustrations or examples	1	2	3	4	NA

Method #3: Surveys & Self-Assessment

- A set of criteria you develop to gauge progress in specific areas
- Each criteria represents an element of the SLO
- For each criteria, **success is scored against a subjective, non-uniform standard internal to the student**
- Surveys are nice tools for gauging awareness or general satisfaction, but by themselves the ability to capture evidence of actual learning in a survey instrument is a bit of a challenge.

So let's recap:

1. You have identified an SLO
2. You have some method for collecting evidence of learning outcomes:
 - Multiple choice quiz
 - Checklist
 - Rubric method
 - Surveys

So how do you manage that information?

There are the Left-Brainers...

* King Arthur Rubric for Research Paper					ECON1085: Economics of Silicon Valley Prof Gregory Stoup 3.0 Units T-Th 12:45 - 2:00 PM					
Individual SLOs for Research Paper	Not Competent Score = 1	Marginally Competent Score = 2	Competent Score = 3	Highly Competent Score = 4	LEARNING OUTCOMES FOR RESEARCH PAPER					
Posed a thoughtful research question			X		Posed a thoughtful research question					
Gathered information from a variety of sources				X	Gathered information from a variety of sources					
Analyzed information & drew conclusions		X			Analyzed information & drew conclusions					
Organized research paper logically				X	Organized research paper logically					
Documented, cited sources properly	X				Documented, cited sources properly					
Communicated findings well			X		Communicated findings well					
Student ID	Student Name									
G00000001	King Arthur	3	4	4	4	1	3	2.8	B	
G00000002	Sir Gawain	3	4	1	3	2	4	2.8	B	
G00000003	Sir Lancelot	3	3	3	4	4	3	3.3	A	
G00000004	Sir Perceval	2	2	4	1	3	4	2.7	C	
G00000005	Sir Galahad	4	4	2	4	4	4	3.7	A	
G00000006	Sir Bors of Gaul	3	4	2	3	3	3	3.0	A	
G00000007	Sir Kay	3	3	3	2	2	3	2.7	C	
G00000008	Sir Bedivere	2	2	2	3	2	4	2.5	C	
G00000009	Lucan the Butler	2	4	1	4	4	4	3.2	A	
G00000010	Sir Gaius	1	3	2	4	4	4	3.0	B	
G00000011	Sir Ywain	4	3	4	3	4	4	3.7	A	
G00000012	Sir Erec	3	4	2	4	3	4	3.3	A	
G00000013	Sir Cadur	4	4	3	2	4	3	3.3	B	
G00000014	King Hoel	2	2	2	4	4	2	2.7	C	
G00000015	Sir Tristan	2	4	1	4	3	3	2.8	B	
G00000016	Sir Morholt	3	4	2	1	3	4	2.8	B	
G00000017	Sir Palamedes the Saracens	3	3	3	4	4	4	3.5	A	
G00000018	Sir Dinadan	2	2	3	4	4	2	2.8	B	
G00000019	Sir Lionel	4	4	4	3	4	4	3.8	A	
G00000020	Sir Elyan the White	3	3	1	4	3	4	3	B	
AVERAGE SCORE		2.8	3.3	2.4	3.3	3.3	3.5			
PERCENT HIGHLY COMPETENT		20%	50%	15%	55%	50%	60%			
		Weakness	Weakness				Strength			

“ I have all my SLOs & course grades organized in a single spreadsheet and I have brought order to my classroom universe ”

And then there are the rest of us...



“ I hate Banner “

Summative Assessment

Building the tools to help you
develop insights

Now stay with me here...

This is the most daunting part of the exercise.

<u>Your Task</u>	<u>Est. Time Requirement</u>
1. Go to your computer & logon onto Banner	1 minute
2. In Banner, download your class roster	2 minutes
3. Enter your SLO criteria into the roster sheet	2 minutes
4. Enter you SLO data into the roster sheet	5 minutes
5. Calculate a performance score	1 minute

You don't need to know anything about spreadsheets, just how to use a mouse and type.

For the Luddites...

For those of you that are completely, adamantly, and genetically opposed to using the computer for organizing your grading:

- Don't leave just yet
- Grab a printout of your class roster, SLOs & grade sheet
- Grab a pencil & a calculator

You won't enjoy the full benefits of the spreadsheet approach, but you will still learn interesting things about your students

Grab your roster, i.e. the spreadsheet

Student ID	Student Name																			
G000000001	King Arthur																			
G000000002	Sir Gawain																			
G000000003	Sir Lancelot																			
G000000004	Sir Perceval																			
G000000005	Sir Galahad																			
G000000006	Sir Bors of Gaul																			
G000000007	Sir Kay																			
G000000008	Sir Bedivere																			
G000000009	Lucan the Butler																			
G000000010	Sir Girflet																			
G000000011	Sir Ywain																			
G000000012	Sir Erec																			
G000000013	Sir Cador																			
G000000014	King Hoel																			
G000000015	Sir Tristan																			

- Start with your grade sheet or your class roster
- You will want a separate column for each of your individual SLO criteria
- For those with paper & pencil just draw the grid
- For those that want to plan ahead, keep one column for your course grades (or just make space on your existing grade sheet)

Now grab your SLOs

Student ID	Student Name	Criteria #1	Criteria #2	Criteria #3	Criteria #4	Criteria #5	Criteria #6	Criteria #7	Criteria #8	Criteria #9	Criteria #10
G000000001	King Arthur										
G000000002	Sir Gawain										
G000000003	Sir Lancelot										
G000000004	Sir Perceval										
G000000005	Sir Galahad										
G000000006	Sir Bors of Gaul										
G000000007	Sir Kay										
G000000008	Sir Bedivere										
G000000009	Lucan the Butler										
G000000010	Sir Girflet										
G000000011	Sir Ywain										
G000000012	Sir Erec										
G000000013	Sir Cador										
G000000014	King Hoel										
G000000015	Sir Tristan										

Take your student course list in Excel

For each criteria in your SLO, make a column in the spreadsheet

Rating scale example

CRITERIA	Not Satisfactory	Minimally Satisfactory	Satisfactory	Highly Satisfactory	Not Applicable
Chooses and narrows a significant topic appropriate for the audience and occasion	1	2	3	4	NA
Communicates their specific purpose to audience in a clear manner	1	2	3	4	NA
Balances purpose, and occasion with audience needs and expectations	1	2	3	4	NA
Provides a clear, easily identified organization appropriate to topic, audience, purpose and occasion	1	2	3	4	NA
Demonstrates appropriate understanding of the topic, discipline, or genre	1	2	3	4	NA
Provides appropriate supporting evidence	1	2	3	4	NA
Uses language appropriate to the audience and occasion	1	2	3	4	NA
Uses vocal variety (pitch, pace, inflection, volume)	1	2	3	4	NA
Uses physical behaviors (gestures, postures, movement, eye contact) that support the verbal message	1	2	3	4	NA
Uses visual aids, when appropriate, to provide useful illustrations or examples	1	2	3	4	NA

Enter each student's score for each SLO criteria

Student ID	Student Name	Criteria #1	Criteria #2	Criteria #3	Criteria #4	Criteria #5	Criteria #6	Criteria #7	Criteria #8	Criteria #9	Criteria #10
G000000001	King Arthur	3	2	1	4	3	1	3	2	4	3
G000000002	Sir Gawain	2	2	2	3	4	1	3	1	3	2
G000000003	Sir Lancelot	1	2	3	2	4	3	2	2	2	3
G000000004	Sir Perceval	4	4	2	3	4					
G000000005	Sir Galahad										
G000000006	Sir Bors of Gaul										
G000000007	Sir Kay										
G000000008	Sir Bedivere										
G000000009	Lucan the Butler										
G000000010	Sir Girflet										
G000000011	Sir Ywain										
G000000012	Sir Erec										
G000000013	Sir Cador										
G000000014	King Hoel										
G000000015	Sir Tristan										

Checklist SLO

SLO CRITERIA	Student Achieved Objective
Chooses and narrows a significant topic appropriate for the audience and occasion	✓
Communicates thesis/specific purpose to audience in a clear manner	
Balances purpose, and occasion with audience needs and expectations	
Provides a clear, easily identified organization appropriate to topic, audience, purpose and occasion	✓
Demonstrates appropriate understanding of the topic, discipline, or genre	✓
Provides appropriate supporting evidence	
Uses language appropriate to the audience and occasion	
Uses vocal variety (pitch, pace, inflection, volume)	
Uses physical behaviors (gestures, postures, movement, eye contact) that support the verbal message	✓
Uses visual aids, when appropriate, to provide useful illustrations or examples	✓
Others...	

For the **Rating Scale** this is the score figure; for the **Checklist and Multiple Choice** this is either a 1 or a zero (check = 1; no check = 0)

Rating scale example

CRITERIA	Not Satisfactory	Minimally Satisfactory	Satisfactory	Highly Satisfactory	Not Applicable
Chooses and narrows a significant topic appropriate for the audience and occasion	1	2	3	4	NA
Communicates thesis/specific purpose to audience in a clear manner	1	2	3	4	NA
Balances purpose, and occasion with audience needs and expectations	1	2	3	4	NA
Provides a clear, easily identified organization appropriate to topic, audience, purpose and occasion	1	2	3	4	NA
Demonstrates appropriate understanding of the topic, discipline, or genre	1	2	3	4	NA
Provides appropriate supporting evidence	1	2	3	4	NA
Uses language appropriate to the audience and occasion	1	2	3	4	NA
Uses vocal variety (pitch, pace, inflection, volume)	1	2	3	4	NA
Uses physical behaviors (gestures, postures, movement, eye contact) that support the verbal message	1	2	3	4	NA
Uses visual aids, when appropriate, to provide useful illustrations or examples	1	2	3	4	NA

The only calculation you have to make

Student ID	Student Name	Criteria #1	Criteria #2	Criteria #3	Criteria #4	Criteria #5	Criteria #6	Criteria #7	Criteria #8	Criteria #9	Criteria #10
G000000001	King Arthur	3	3	1	4	1	3	2	4	2	4
G000000002	Sir Gawain	2	4	2	3	1	2	3	1	3	2
G000000003	Sir Lancelot	1	4	3	2	3	2	4	1	1	1
G000000004	Sir Perceval	4	4	2	3	2	2	2	4	2	3
G000000005	Sir Galahad	2	3	2	4	1	3	2	4	4	4
G000000006	Sir Bors of Gaul	2	4	2	3	2	2	1	2	4	4
G000000007	Sir Kay	3	4	3	2	2	1	3	1	3	2
G000000008	Sir Bedivere	2	3	1	3	2	3	2	2	2	3
G000000009	Lucan the Butler	1	4	3	4	3	3	4	4	2	2
G000000010	Sir Girflet	2	3	4	3	1	3	3	4	3	1
G000000011	Sir Ywain	4	2	1	2	1	2	2	1	2	3
G000000012	Sir Erec	3	3	2	3	2	3	3	4	1	1
G000000013	Sir Cador	2	4	4	2	1	4	2	4	3	2
G000000014	King Hoel	2	3	3	2	2	3	2	1	2	3
G000000015	Sir Tristan	2	4	2	2	3	4	3	1	3	4
AVERAGE		2.3	3.5	2.3	2.8	1.8	2.7	2.5	2.5	2.5	2.6

For the Checklist and Multiple Choice Methods:

- For each column, count the number of successes
- In Excel type “=sum(“ and then drag mouse over the numbers to count

For the Rubric Methods:

- For each column, calculate the average score
- In Excel type “=average(“ and then drag mouse over numbers to average

Summative
SLO Data

You can now isolate possible intervention points

Student ID	Student Name	Criteria #1	Criteria #2	Criteria #3	Criteria #4	Criteria #5	Criteria #6	Criteria #7	Criteria #8	Criteria #9	Criteria #10
G000000001	King Arthur	3	3	1	4	1	3	2	4	2	4
G000000002	Sir Gawain	2	4	2	3	1	2	3	1	3	2
G000000003	Sir Lancelot	1	4	3	2	3	2	4	1	1	1
G000000004	Sir Perceval	4	4	2	3	2	2	2	4	2	3
G000000005	Sir Galahad	2	3	2	4	1	3	2	4	4	4
G000000006	Sir Bors of Gaul	2	4	2	3	2	2	1	2	4	4
G000000007	Sir Kay	3	4	3	2	2	1	3	1	3	2
G000000008	Sir Bedivere	2	3	1	3	2	3	2	2	2	3
G000000009	Lucan the Butler	1	4	3	4	3	3	4	4	2	2
G000000010	Sir Girflet	2	3	4	3	1	3	3	4	3	1
G000000011	Sir Ywain	4	2	1	2	1	2	2	1	2	3
G000000012	Sir Erec	3	3	2	3	2	3	3	4	1	1
G000000013	Sir Cador	2	4	4	2	1	4	2	4	3	2
G000000014	King Hoel	2	3	3	2	2	3	2	1	2	3
G000000015	Sir Tristan	2	4	2	2	3	4	3	1	3	4
AVERAGE		2.3	3.5	2.3	2.8	1.8	2.7	2.5	2.5	2.5	2.6

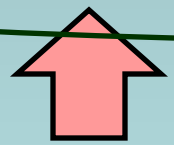

Strength


Weakness

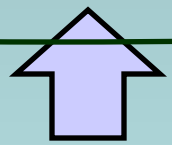
This is the act of assessment

Another quick & dirty metric

Student ID	Student Name	Criteria #1	Criteria #2	Criteria #3	Criteria #4	Criteria #5	Criteria #6	Criteria #7	Criteria #8	Criteria #9	Criteria #10
G000000001	King Arthur	3	3	1	4	1	3	2	4	2	4
G000000002	Sir Gawain	2	4	2	3	1	2	3	1	3	2
G000000003	Sir Lancelot	1	4	3	2	3	2	4	1	1	1
G000000004	Sir Perceval	4	4	2	3	2	2	2	4	2	3
G000000005	Sir Galahad	2	3	2	4	1	3	2	4	4	4
G000000006	Sir Bors of Gaul	2	4	2	3	2	2	1	2	4	4
G000000007	Sir Kay	3	4	3	2	2	1	3	1	3	2
G000000008	Sir Bedivere	2	3	1	3	2	3	2	2	2	3
G000000009	Lucan the Butler	1	4	3	4	3	3	4	4	2	2
G000000010	Sir Girflet	2	3	4	3	1	3	3	4	3	1
G000000011	Sir Ywain	4	2	1	2	1	2	2	1	2	3
G000000012	Sir Erec	3	3	2	3	2	3	3	4	1	1
G000000013	Sir Cador	2	4	4	2	1	4	2	4	3	2
G000000014	King Hoel	2	3	3	2	2	3	2	1	2	3
G000000015	Sir Tristan	2	4	2	2	3	4	3	1	3	4
Average		2.3	3.5	2.3	2.8	1.8	2.7	2.5	2.5	2.5	2.6
Std Dev		0.90	0.64	0.98	0.77	0.77	0.82	0.83	1.46	0.92	1.12



Strength



Weakness



Step Function Indicator

Step Function Indicators are those parts of the curriculum where learning is generally associated with a sudden moment of illumination or synthesis ...those aha! moments

You can now consider developing a response strategy to your evidence

Weaknesses – Consider revising teaching methods related to that outcome.

Moderate Successes – Keep what worked but consider changes.

Strengths – Consider using the same methods for other outcomes.

Before we proceed let's pause & recap:

For those that have haven't used this approach, you now have a set of simple tools to help you tease apart your SLOs and see what has been most effective in your classroom

For those that have, you have a foundation to do some truly revealing assessment....

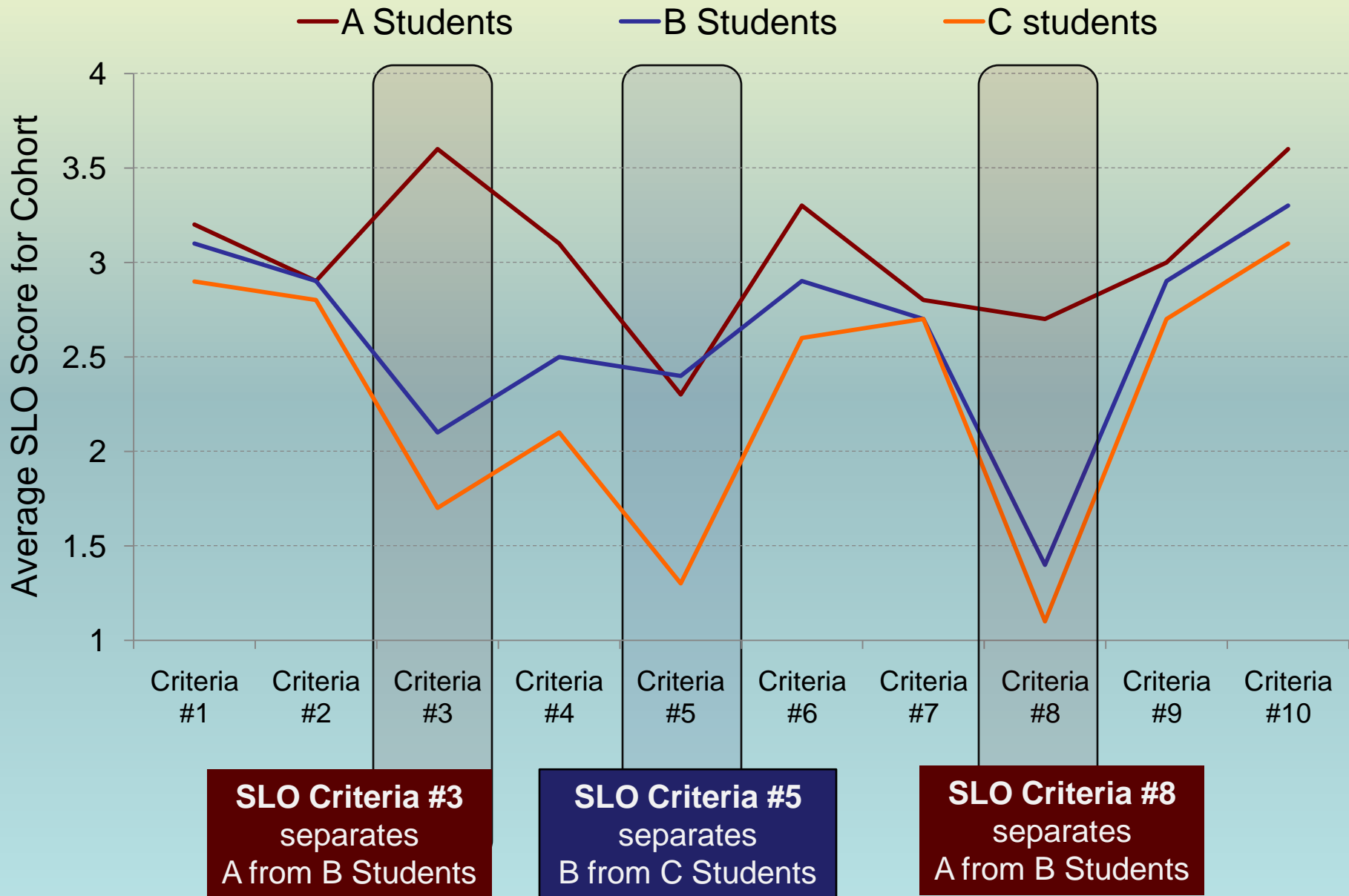
Consider linking your SLOs to student grades

Student ID	Student Name	Criteria #1	Criteria #2	Criteria #3	Criteria #4	Criteria #5	Criteria #6	Criteria #7	Criteria #8	Criteria #9	Criteria #10	Assignment Grades		Final Grade
												Midterm	Final	
G000000001	King Arthur	3	3	1	4	3	1	2	1	2	4	89	99	A
G000000002	Sir Gawain	2	4	2	3	2	1	3	1	3	2	85	45	C
G000000003	Sir Lancelot	1	4	3	2	2	3	4	3	1	1	85	98	A
G000000004	Sir Perceval	4	4	2	3	2	2	2	2	2	3	77	87	B
G000000005	Sir Galahad	2	3	2	4	3	1	2	4	4	4	54	79	C
G000000006	Sir Bors of Gaul	2	4	2	3	2	2	1	2	4	4	49	77	C
G000000007	Sir Kay	3	4	3	2	1	2	3	2	3	2	58	69	D
G000000008	Sir Bedivere	2	3	1	3	3	2	2	2	2	3	91	90	A
G000000009	Lucan the Butler	1	4	3	4	3	3	4	3	2	2	81	82	B
G000000010	Sir Girflet	2	3	4	3	3	1	3	3	3	1	95	90	A
G000000011	Sir Ywain	4	2	1	2	2	1	2	1	2	3	88	93	A
G000000012	Sir Erec	3	3	2	3	3	2	3	4	1	1	44	54	F
G000000013	Sir Cador	2	4	4	2	4	1	2	1	3	2	87	79	B
G000000014	King Hoel	2	3	3	2	3	2	2	2	2	3	82	85	B
G000000015	Sir Tristan	2	4	2	2	4	3	3	3	3	4	91	93	A
AVERAGE		2.3	3.5	2.3	2.8	2.7	1.8	2.5	2.3	2.5	2.6			

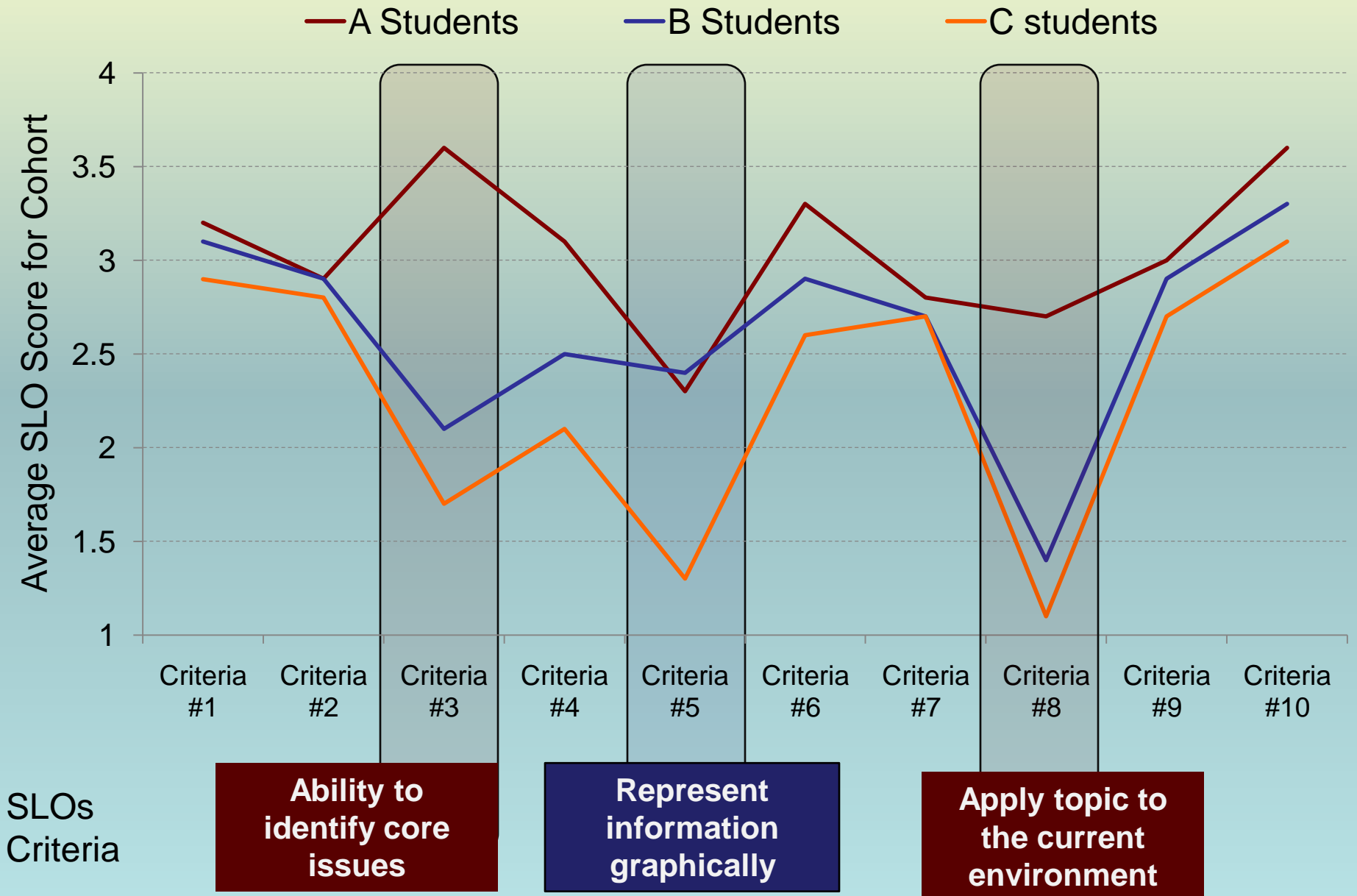
For the savvy, you can list student grades in an adjacent column and see if success in certain SLO criteria are associated with higher grades.

This approach can open some interesting windows into student learning...

For example, you can identify points of separation



For example, you can identify points of separation



SLOs
Criteria

My experience with SLO Assessment

- Confirmed some suspicions
- Identified hidden student capabilities
- Isolated some concerning patterns
- Triggered a few simple & a few substantive modifications
 - Restructured some assignments
 - New text book; changed sequence of course content
 - More instruction related to graphical analysis
 - Less theory
- Evidence of improvements the following term

Individual SLOs for Research Paper	Not Competent Score = 1	Marginally Competent Score = 2	Competent Score = 3	Highly Competent Score = 4
Posed a thoughtful research question			X	
Gathered information from a variety of sources				X
Analyzed information & drew conclusions		X		
Organized research paper logically				X
Documented, cited sources properly	X			
Communicated findings well			X	

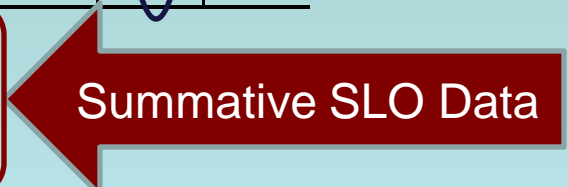
LEARNING OUTCOMES FOR RESEARCH PAPER

Posed a thoughtful research question
 Gathered information from a variety of sources
 Analyzed information & drew conclusions
 Organized paper logically
 Documented, cited sources properly
 Communicated findings well
 Aggregate SLO Score
 Student Grade on Research Paper

Student ID	Student Name	Posed a thoughtful research question	Gathered information from a variety of sources	Analyzed information & drew conclusions	Organized paper logically	Documented, cited sources properly	Communicated findings well	Aggregate SLO Score	Student Grade on Research Paper
G000000001	King Arthur	3	4	2	4	1	3	2.8	B
G000000002	Sir Gawain	3	4	1	3	2	4	2.8	B
G000000003	Sir Lancelot	3	3	3	4	4	3	3.3	A
G000000004	Sir Perceval	2	2	4	1	3	4	2.7	C
G000000005	Sir Galahad	4	4	2	4	4	4	3.7	A
G000000006	Sir Bors of Gaul	3	4	2	3	3	3	3.0	A
G000000007	Sir Kay	3	3	3	2	2	3	2.7	C
G000000008	Sir Bedivere	2	2	2	3	2	4	2.5	C
G000000009	Lucan the Butler	2	4	1	4	4	4	3.2	A
G000000010	Sir Girflet	1	3	2	4	4	4	3.0	B
G000000011	Sir Ywain	4	3	4	3	4	4	3.7	A
G000000012	Sir Erec	3	4	2	4	3	4	3.3	A
G000000013	Sir Cador	4	4	3	2	4	3	3.3	B
G000000014	King Hoel	2	2	2	4	4	2	2.7	C
G000000015	Sir Tristan	2	4	1	4	3	3	2.8	B
G000000016	Sir Morholt	3	4	2	1	3	4	2.8	B
G000000017	Sir Palemedes the Saracen	3	3	3	4	4	4	3.5	A
G000000018	Sir Dinadan	2	2	3	4	4	2	2.8	B
G000000019	Sir Lionel	4	4	4	3	4	4	3.8	A
G000000020	Sir Elyan the White	3	3	1	4	3	4	3	B



AVERAGE SCORE	2.8	3.3	2.4	3.3	3.3	3.5
PERCENT HIGHLY COMPETENT	20%	50%	15%	55%	50%	60%
	Weakness		Weakness			Strength



Just a final word on Rubrics

One of the big silent actors in this play:

The Rubric

It can be either formal or informal

A formal rubric has many advantages & is sort of necessary for robust assessment

Steps for developing a Rubric

- ▶ **Brainstorm** a list of what you expect to see in the student work that demonstrates the particular learning outcome(s) you are assessing.
- ▶ **Keep the list manageable (3-8 items)** and focus on the most important abilities, knowledge, or attitudes expected.
- ▶ Edit the list so that each item is specific and concrete, **use action verbs** when possible, and descriptive, meaningful adjectives (e.g., not “adequate” or “appropriate” but “correctly” or “carefully”).
- ▶ **Assign values**, either numeric or descriptive, to varying levels of competence or skill. These levels could be described in detail or could simply be numeric representations of some level of an ideal.
- ▶ **Test the rubric** by scoring a small sample of student work. Are your expectations too high or too low? Are some items difficult to rate and in need of revision?

Open Discussion

Where are you in the SLO development cycle?

What challenges are you facing?

What are your biggest obstacles?

Is there anything my office can do to help ?

THANK YOU