Building an Assessment Instrument in 20 minutes or Less

SLOAC WORKSHOP

February 6, 2009

Office of Planning, Research & Student Success
Cañada College

Workshop Summary

1. Quick overview of SLO assessment

2. Review of several types of scoring methods

3. Introduction of an SLO management tool

4. Steps for developing your own approach

5. Questions / Open Discussion

The Motivation for this Workshop

- SLOs are **<u>not</u>** 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

Why SLOs are important

- We don't have an explicit and elegant model that we can universally apply

- We can say that institutions that embrace SLO assessment techniques tend to have academic cultures that value self-examination, reflection & continuous improvement.

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

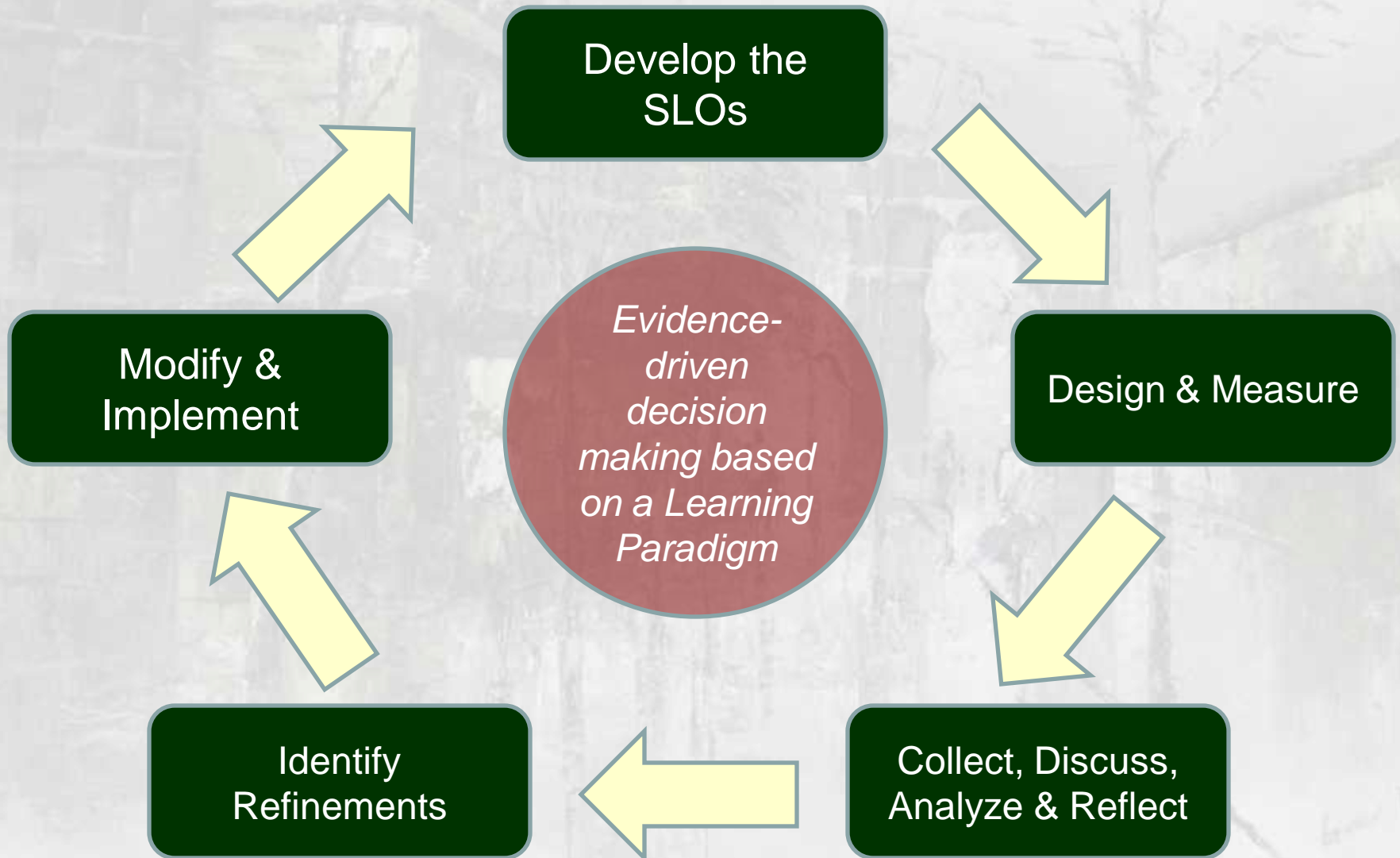| Identify a Goal	Accomplish an Objective →	Arrive at an Outcome
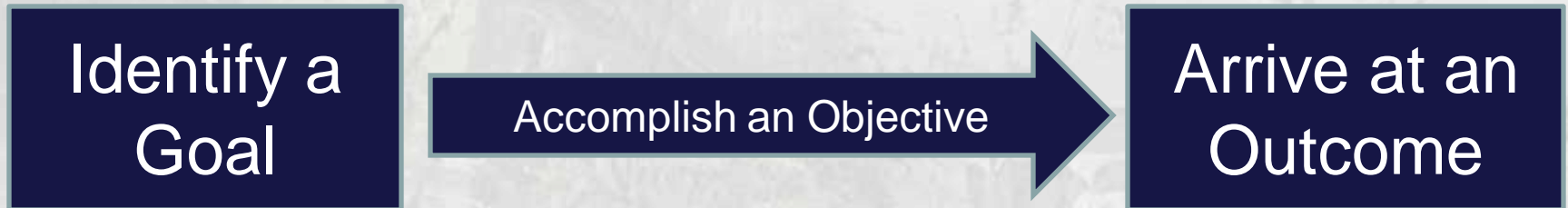
Goals – Where you want to go

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.

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

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*** ?!?!

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 ?"

Me: gulp…

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 20 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

And once you've collected your SLO data & entered it into the dataset, the information is 100% yours, for your eyes only.

Before we get started: Which approach is best for my class?

Yes, I can answer this question before you've seen a single method or example.

Choose the method that you feel most comfortable with.

The quality of the SLO assessment inevitably relate back to how well you interface with that approach.

Now on to the substance….

Overview of several types of scoring methods

1. **Multiple choice test & checklists**
2. **Rubric methods**
3. **Surveys**

Let's start with the most straight forward methods

Method #1: 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	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…	

Assessment with the checklist

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…	

When applied across a classroom this method yields one score per student related to their performance against the SLO

Sum up all the correct items……………….. #

Typically the score is applied against a rubric and the student is lumped into a performance category (Not satisfactory, Satisfactory, Highly Satisfactory, etc.)

At the end of the day you have a single SLO score for each student

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	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)

Rating scale example

CRITERIA	Not Satisfactory	Minimally Satisfactory	Satisfactory	Highly Satisfactory	Not Applicable
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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)

When applied across a classroom this method yields one score per student related to their performance against the SLO

Sum the numbers in all the circles………………. #

Again, typically the score is applied against a rubric and the student is lumped into a performance category

At the end of the day you have one SLO score & a category for each student

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…

"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 "

For the Type B people, what information emerges from your system?

What you know:

• Each student's SLO score
• How each student did against each SLO criteria

What you might know:

• The general trend in SLO performance from term to term
• A sense of which SLO criteria students tend to challenge students

What you might like to know:

• Which are the key criteria – those most associated with a high overall SLO performance
• Which criteria are linked to higher course grades
• Which criteria scores tend to change most from term to term
• Actual trends in performance against each criteria

Summative Assessment

Building the tools to help you develop insights

Now stay with me here…

This is the most daunting part of the exercise.

You are going to have to:

1. Go to the computer
2. Download your course roster from Banner
3. Type your SLO criteria into the spreadsheet
4. Enter your student SLOs into the spreadsheet
5. Calculate an performance score

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

Now stay with me here…

This is the most daunting part of the exercise.

Your Task	Est. Time Requirement
1. Go to your computer & logon onto Banner	2 minute
2. In Banner, download your class roster	2 minutes
3. Enter your SLO criteria into the roster sheet	4 minutes
4. Enter you SLO data into the roster sheet	10 minutes
5. Calculate a performance score	2 minutes

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 you 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 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

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										
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Checklist SLO

SLO CRITERIA	Student Achieved Objective
Chooses and narrows a significant topic appropriate for the audience and occasion	√
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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
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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**

Summative SLO Data

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

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**
	Count of 4s	**2**	**2**	**8**	**3**	**0**	**1**	**2**	**7**	**2**	**4**
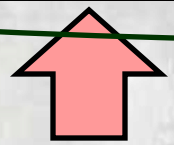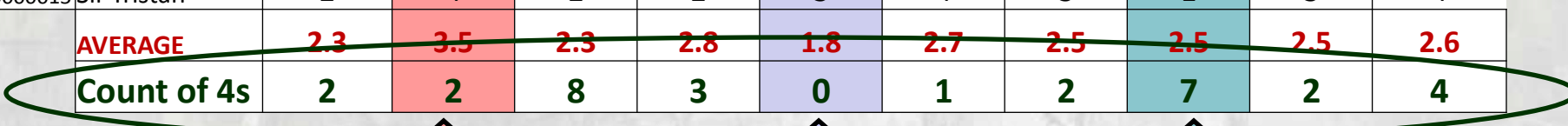
Strength
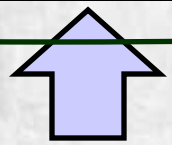
Weakness
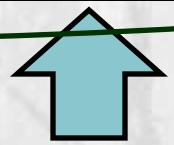
Step Function
Indicator

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

Rule of thumb for identifying Step Function Indicators

Identify which SLO Criteria where the spread between the Average score and the Count of Successes exceeds a certain *spread* value as defined by this rule:

# of Students	Spread
10	> 2
20	> 3
30	> 4
40	> 5

This tool applies to those that use the Rubric Method of Assessment

Before we proceed let's 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

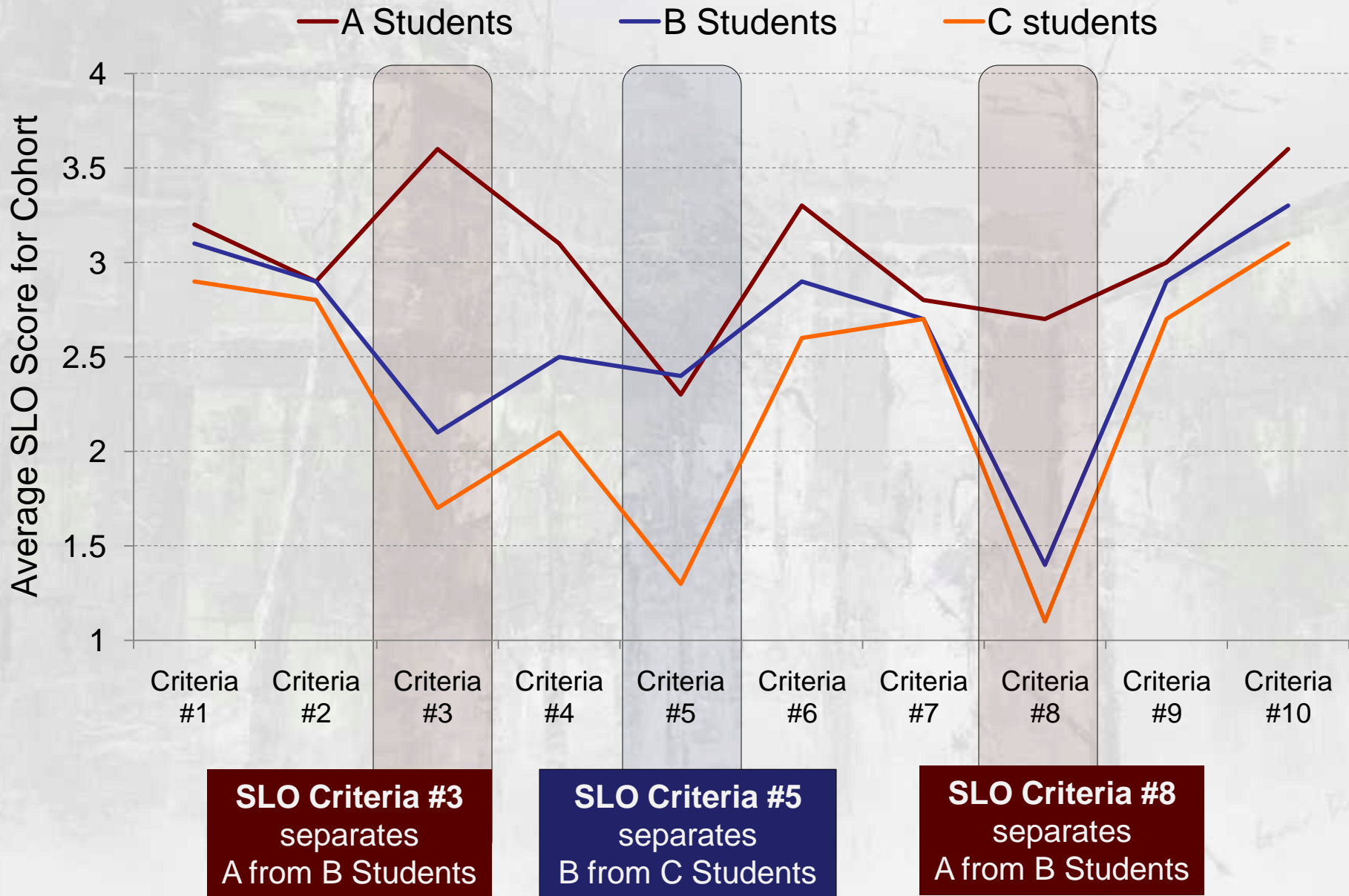For those that have, you have a foundation to do some truly revealing assessment….

Consider linking your SLOs to student grades

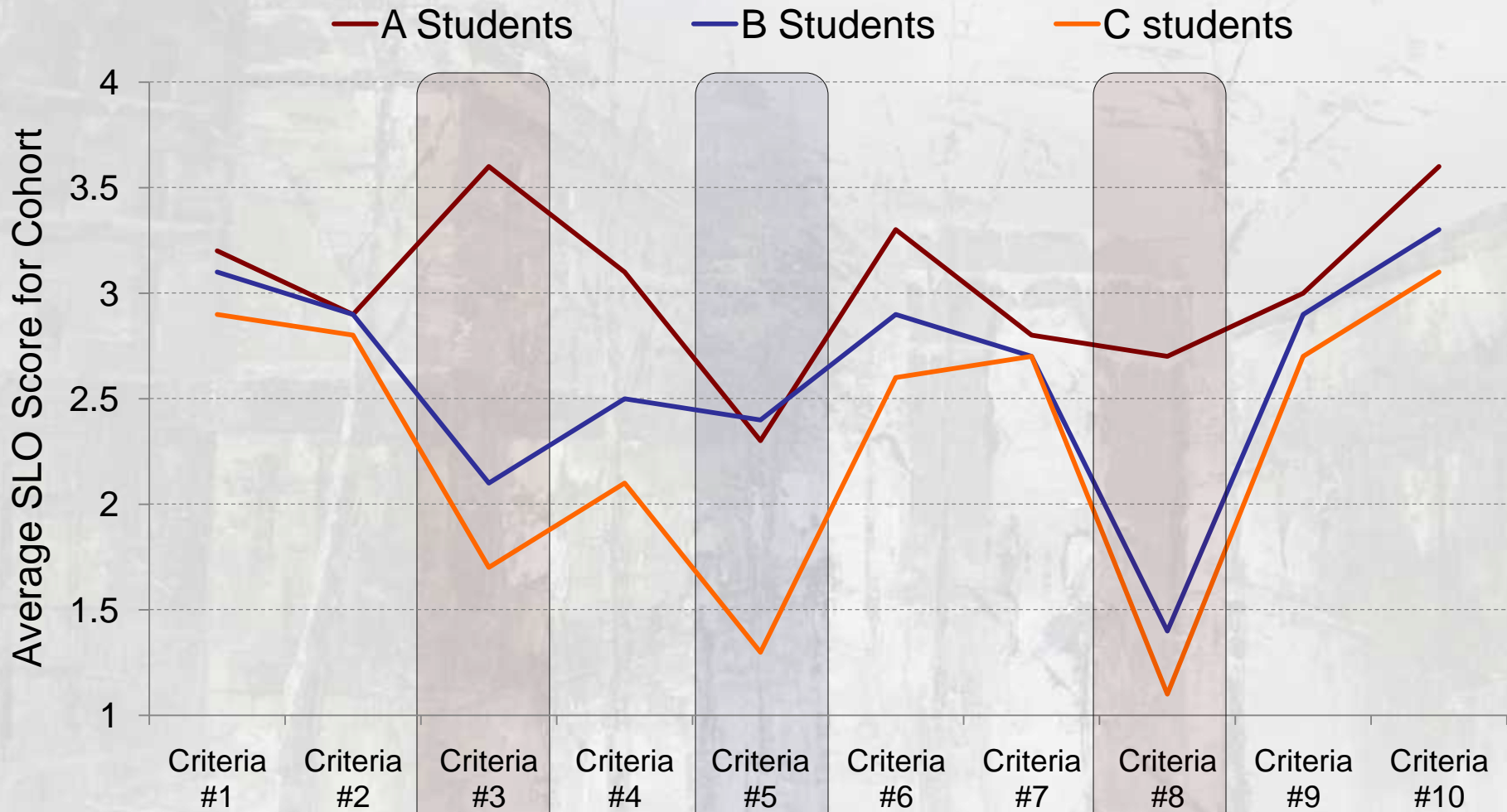| Student ID	Student Name	Criteria #1	Criteria #2	Criteria #3	Criteria #4	Criteria #5	Criteria #6	Criteria #7	Criteria #8	Criteria #9	Criteria #10	Assignment Grades Midterm	Assignment Grades Final	Final Grade
G000000001	King Arthur	3	3	1	4	3	1	2	1	2	4	89	99	A
G000000002	Sir Gawain	2	4	2	3	2	1	3	1	3	2	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

Legend: A Students, B Students, C students

Y-axis: Average SLO Score for Cohort (1 to 4)

X-axis: Criteria #1, Criteria #2, Criteria #3, Criteria #4, Criteria #5, Criteria #6, Criteria #7, Criteria #8, Criteria #9, Criteria #10

SLO Criteria #3 separates A from B Students

SLO Criteria #5 separates B from C Students

SLO Criteria #8 separates A from B Students

For example, you can identify points of separation

Legend: A Students, B Students, C students

Y-axis: Average SLO Score for Cohort (1 to 4)

X-axis: Criteria #1, Criteria #2, Criteria #3, Criteria #4, Criteria #5, Criteria #6, Criteria #7, Criteria #8, Criteria #9, Criteria #10

Skills & Learning Concepts

- Ability to identify core issues
- Represent information graphically
- Apply topic to the current environment

My experience with SLO Assessment

- Confirmed some suspicions

- Identified hidden student capabilities

- Isolated some concerning patterns

- Triggered a few classroom 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

*King Arthur

Rubric for Research Paper

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

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	3	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%		

Grades for Research Paper

Summative SLO Data

Weakness   Weakness   Strength
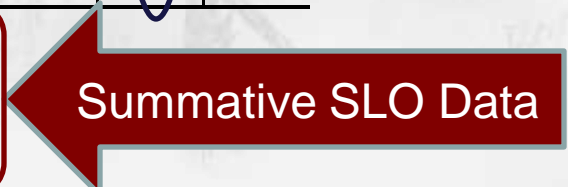
You can now consider developing a response strategy to your evidence

Weaknesses – Consider revising teaching methods related to that outcome.

Moderate Successes – Keep what worked but consider changes.

Strengths – Consider adapting the same methods for other outcomes.

Let's stop here for a moment

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?

Assessment - using the rubric

1. Evaluators should *meet together* for a training session.

2. One or more *examples* of student work should be examined and scored.

3. Discuss the scores and make decisions about conflicts that arise.

4. More than one faculty member should score the student work.

5. If two faculty members disagree significantly (more than 1 point on a 4 point scale) a third person should score the work.

6. If frequent disagreements arise about a particular item, the item may need to be refined or removed.

Remember all this relates to the SLO Triangle

ASSESSMENT

If we get this right the triangle resides within a virtuous cycle that allows and encourages continuous tweaking and ultimately generates sustained improvements SLO outcomes

STUDENT LEARNING

CURRICULUM

PEDAGOGY

Open Discussion

Where are you in the SLO development cycle?
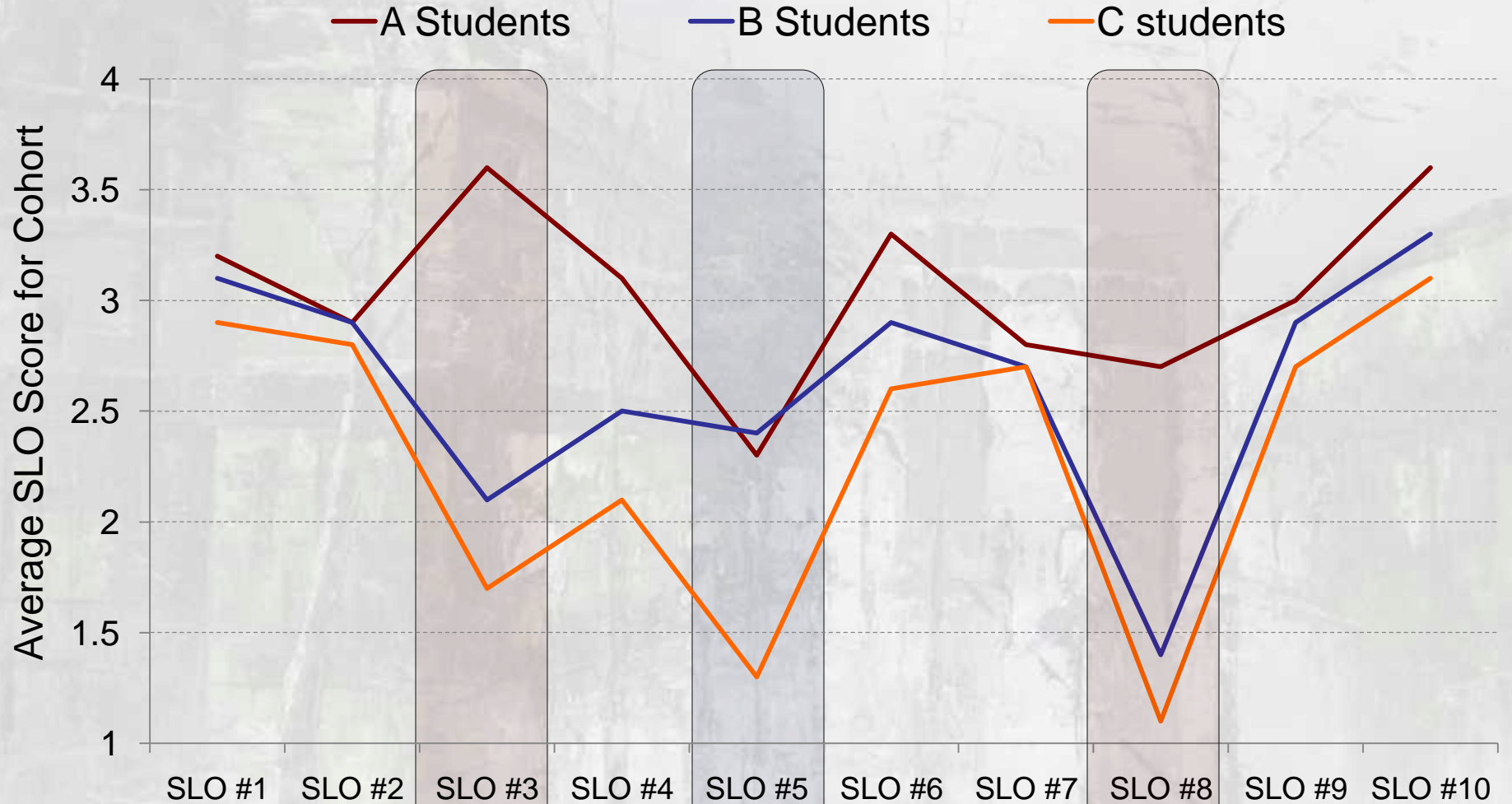
What challenges are you facing?

What are you biggest obstacles?

Is there anything, anything my office can do to help ?

THANK YOU

Profile of Student SLO Performance by Final Course Grade