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### High Stakes: Creating Summative Assessments that Align to Student Learning Outcomes

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# HIGH STAKES

CREATING SUMMATIVE ASSESSMENTS THAT ALIGN TO STUDENT LEARNING OUTCOMES



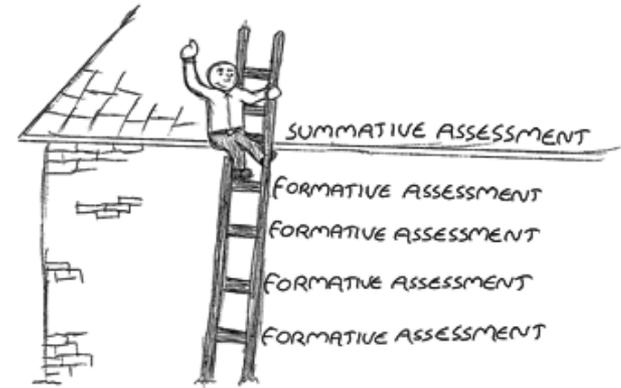
Aaron Haberman, Wendilyn Flynn  
2018-19 CETL Workshop Series  
10/29/2018

**UNC**



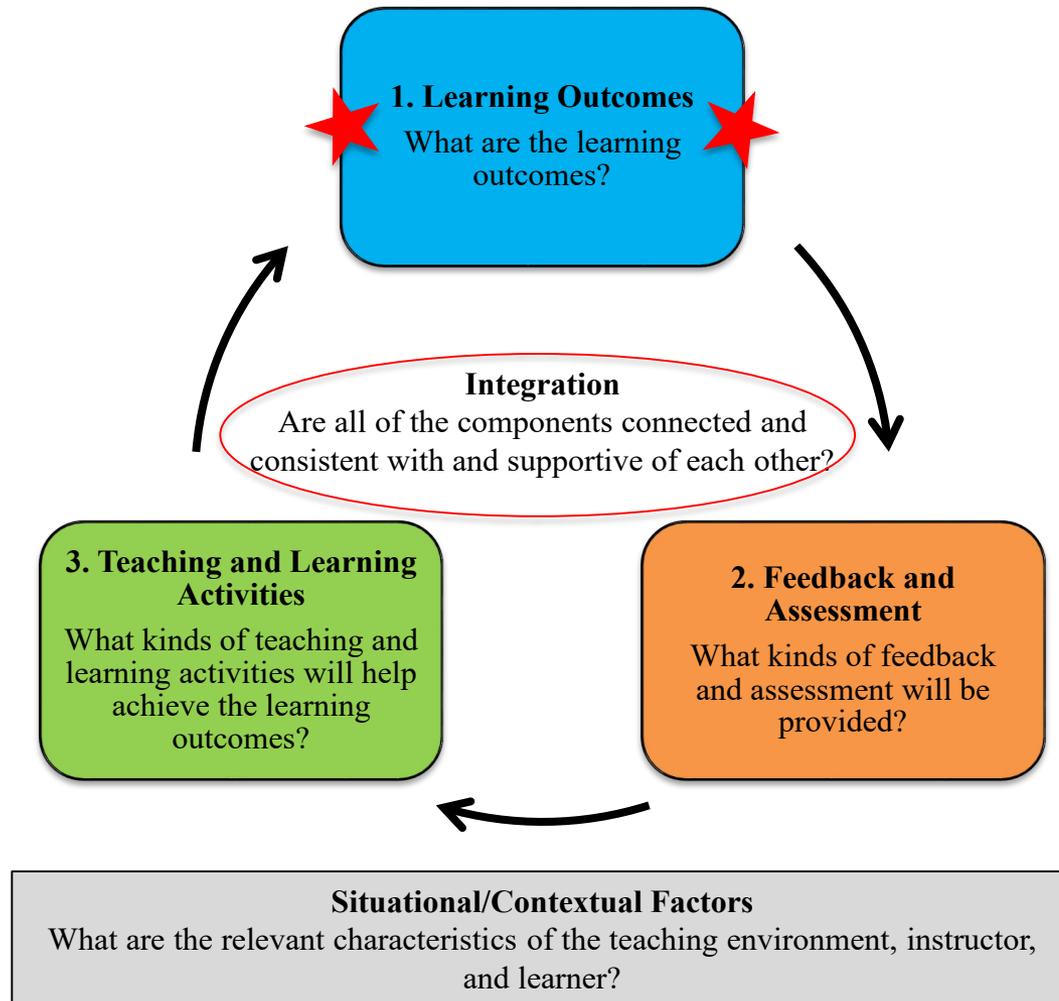
# Workshop Outline

- Introduction and Background
  - Formative vs. Substantive
  - Definitions
- Guiding questions for critiquing summative assessments.
- Examples of revised summative assessments to better align with SLOs
- *Practice critiquing summative assessment.*
- *Critique your own High Stakes Assessment*
- Summary
- Resources



# Workshop Outcomes

- 1) Describe the importance of aligning summative assessments to learning outcomes.
- 2) Develop confidence to critique assignment.



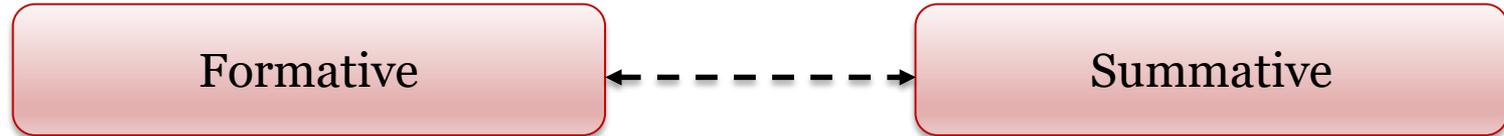


# Assessment Types

## Formative vs. Substantive Assessments

**Formative** – evaluates students' abilities while they are still learning in the course

**Summative** – evaluates students' abilities as they are about to complete the course



improvement vs. accountability  
learning vs. demonstration

- *Which is based more on Student Learning Outcomes?*
- *Which will demonstrate mastery of Student Learning Outcomes?*
- *Which should carry more weight in their final course grade?*

## High Stakes Assessment

- Time investment – “significant”
- In class or outside of class
- Weight in overall grade – “significant percentage”



# Guiding Questions to Evaluate Summative Assessments\*

- What is the main purpose of the assignment?
- How well does it provide a means for students to exhibit or demonstrate the proficiency you want them to have mastered?
- How is the assignment related to course goals? Could that connection be made stronger or more explicit?
- Does the assignment as written provide sufficient information for students to be able to generate a successful (and scorable) response?



# Student Learning Outcomes for Advanced History Classes

1. Acquire an advanced understanding of historical change and begin to identify the major contributions and developments of human societies, their continuities and changes over time, and their influence on the present.
2. Evaluate and apply methods of historical inquiry.
3. Construct and debate historical questions independently in written and oral form.
4. Demonstrate critical and analytical thinking skills by evaluating primary and secondary sources.
5. Compose an outside paper and conduct independent historical research, analyzing primary and secondary sources and demonstrating an awareness of context.



Example of a summative assessment for an upper division course on American Constitutional History:

Pretend you are one of the founding fathers of the country who helped draft and approve the final version of the U.S. constitution in 1787. Magically you have been able to observe the United States in the period of 1901-1960. In a 3-4 page paper evaluate the extent to which you agree with how various presidents in that period exercised presidential power and whether you agree with U.S. Supreme Court decisions during that time period regarding presidential power.



Revised version of summative assessment for an upper division course on American Constitutional History:

In a 3-4 page paper, evaluate the extent to which during the period of 1900-1960, the exercise of presidential power and Supreme Court decisions on presidential power, conformed with the original intent of the drafters of the U.S. constitution. As part of your analysis, you should quote or cite primary sources, notably the relevant parts of the constitution and Supreme Court cases that we have examined in class, as well as detail specific presidential decisions you learned from the scholarly secondary source assigned readings.



# Student Learning Outcomes for Advanced Meteorology

1. Describe basic governing dynamics of those phenomena, and apply that to a physically–motivated analyses of past weather, summaries of present weather, and forecasts of future weather.
2. Derive, calculate, and mathematically describe types of instability.
3. Apply various meteorological stability metrics and interpret atmospheric stability according to these metrics.
4. Plot meteorological data on various meteorological charts (e.g. Skew-T Log-P, Hodograph).
5. Analyze meteorological charts for different types of mesoscale phenomena (e.g. lake effect snow, downslope wind events, squall lines, supercell thunderstorms) and provide specific impacts and threats to life and property.
6. Communicate meteorological concepts and analyses in written and oral formats.



## 15. (24 pts) Forecasting Severe Weather

Revised

- a. Plot the Temperature, Dewpoint, and Wind data (barbs) obtained from the sounding (below) on the (attached) Skew-T Log-P diagram.

PRES hPa	HGHT m	TEMP C	DWPT C	RELH %	MIXR g/kg	DRCT deg	SKNT knot	THTA K	THTE K	THTV K
890.0	1099	18.0	12.0	68	10.00	130	12	301.1	330.9	302.9
875.0	1232	16.2	8.2	59	7.85	125	12	300.6	324.1	302.0
850.0	1474	14.0	8.0	67	7.98	115	13	300.8	324.7	302.2
817.0	1807	11.6	5.6	67	7.03	110	12	301.7	322.9	303.0
750.0	2514	11.2	-5.8	30	3.32	236	15	308.6	319.3	309.2
700.0	3095	5.8	-9.2	33	2.73	240	18	308.9	317.8	309.4
600.0	4267	-4.9	-12.7	54	2.39	235	28	309.7	317.6	310.2
500.0	5730	-17.3	-22.3	65	1.29	240	43	311.9	316.3	312.1
400.0	7360	-29.3	-37.3	46	0.39	250	32	316.8	318.3	316.9
300.0	9350	-43.7	-68.7	5	0.01	260	63	323.6	323.7	323.7
250.0	10550	-49.9	-70.9	7	0.01	255	102	331.8	331.8	331.8
200.0	11990	-57.1	-75.1	8	0.01	255	110	342.2	342.2	342.2

- i. Add a (surface-based) parcel line, and shade areas of CAPE and CIN. Label CAPE and CIN.  
ii. Based on your diagram, discuss the following features of the environment, with regard to their importance and impact on development of supercell storms:

- vertical wind shear
- static or convective instability present (between what pressure levels?)
- layers of stable air present (between what pressure levels?)
- moisture content and implications for convection
- downdrafts and the presence of hail

Revised (slightly)  
ii) Build each piece  
iii) communicate



## Critique either a History or Earth and Atmospheric Science assessment

~10-15 minutes

- Find the History or Earth and Atmospheric Science assessment in your packet. By yourself, read over the assessment as well as the course level outcomes found in the copy of this PowerPoint.
- Write answers to the guiding questions that will help you evaluate the assessment.
- When you are done, turn to a partner and compare and your responses.



# Critique one of your assessments

\* ~10 minutes \*

- With the same guiding questions that you used to evaluate a History or Earth and Atmospheric Sciences assessment, take some time to critique an assessment from one of your classes.
- Use the worksheet in your packets to write answers to the guiding questions about your assessment.



# Resources:

Register and participate in four workshops:  
**CETL Certificate**

**Upcoming Workshops:** <https://www.unco.edu/cetl>

- **Developing A Community-Engaged Learning Syllabus**
- **Exploring the Meaning of Inclusive Teaching**

**UNC – CETL:** <https://www.unco.edu/cetl>

- **Teaching Toolbox → Effective Course Design**

**UNC – Office of Assessment:** <https://www.unco.edu/assessment>

- **Assessment Kit → Developing Student Learning Outcomes**

**National Institute for Learning Outcomes Assessment**

- **Resource Library** → <http://www.learningoutcomesassessment.org/publications.html>

**Publications:**

- **Creating Significant Learning Experiences: An Integrated Approach to Designing College Courses** (Fink, 2003)
- **Assessing Student Learning: A Common Sense Guide** (Suskie, 2018)



THANK YOU



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