

CTL Teaching and Learning

# Fundamentals of Assessment

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Slides available at:  
<https://goo.gl/44cbrr>



**UNIVERSITY OF ALBERTA**  
CENTRE FOR TEACHING AND LEARNING



## Learning Outcomes

Be the end of this session, participants will be able to:

- Effectively use learning outcomes to guide and enhance assessment
- Define formative and summative assessment and describe how each are used in a course
- Give students effective feedback on their submitted assignments
- Explain the benefits of using a rubric to guide assessment of student work

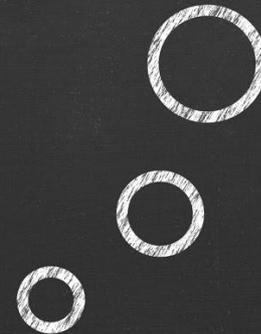
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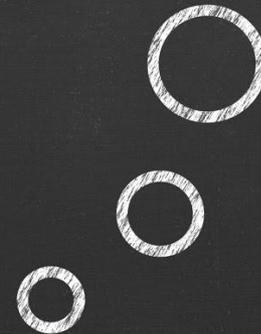


Why do we assess  
students?





on what should we be  
assessing?





“Students may take notes in lectures, seminars, or from their reading, they may have been through the prescribed activities in laboratories or on field trips, but it is only when faced with assessment tasks that the majority of students seriously engage with the material”  
(Bloxham & Boyd, 2007, p. 3)

# Writing Useful Learning Outcomes

## Well written learning outcomes:

- Define what students will be able to do
- Are written in SPECIFIC and BEHAVIOURAL terms (start with a measurable verb)
- Indicate what will be assessed and how it will be assessed



**An outcome describes what you want students to DO with what they learn and how they will show you what they have learned, not simply what they learn!**



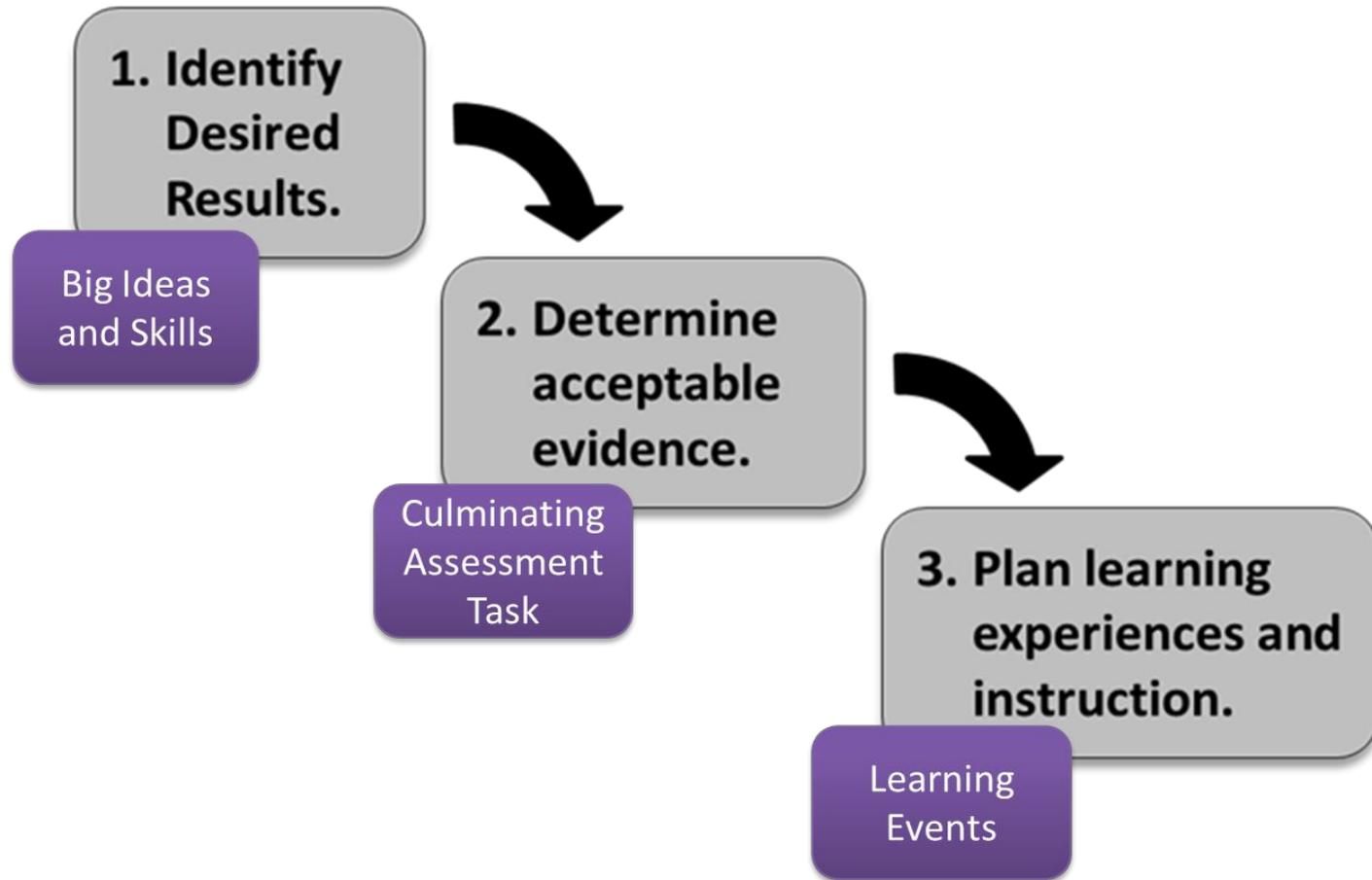
Assessments are “defined” by the verbs used within a learning outcome.

For example:

1. Students should be able to **recognize**, and individually **produce**, writing appropriate to the genres and formats of professional communication including email and other correspondence, professional presentations, and technical reports.
2. Students should be able to **recognize** mixing problems and **identify** what information is needed to address these problems.
3. **Define** and **explain** key concepts in moral and political philosophy, such as Platonic form, ataraxia, utility, imperative, maxim, right of nature, general will, ideology, alienation, and oppression.



# Backward Design



Wiggins, G. P., & McTighe, J. (2005). *Understanding by design*. Association for Supervision & Curriculum Development.



# Components of a Course Map

<b>Assessment Description/Title</b>	<b>Learning Outcomes Covered</b>	<b>Percentage of Course</b>
Teaching Reflections	1, 3, 6	(4 per semester at 5% each) 20%
Unit Plan	1, 2, 3, 4	30%
Lesson Plan	1, 2	5%
Midterm Exam	4, 5	15%
Final Exam	3, 4, 5, 6	30%





**Formative assessment:** any task or activity which creates feedback (or feedforward) for students about their learning. It does not contribute to the final mark or grade (Irons, 2008)

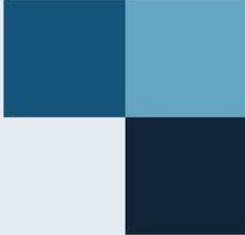
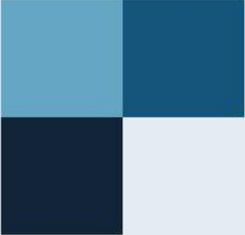
- The objective of formative assessment is ‘assessment *for* learning’

**Summative assessment:** any assessment activity which results in a mark or grade which is subsequently used as a judgment on student performance (Irons, 2008)

- The objective of summative assessment is ‘assessment *of* learning’

Irons, A. (2008). *Enhancing learning through formative assessment and feedback*. Routledge.





# Your poll will show here

1

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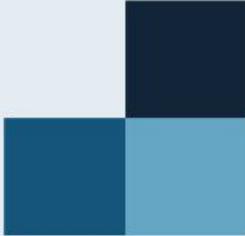
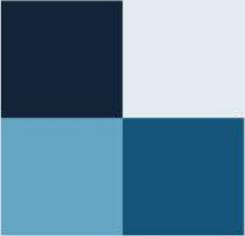
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# A Sample Course Map

Table 1: Sample Course Map for a Faculty of Education Course

Assessment Title	Learning Outcomes	Percentage of Course	Supporting Learning Experiences	Supporting Formative Assessment
Teaching Reflections Due: 1st Friday of each month	1, 3, 6	20% (4 at 5% each)	<ul style="list-style-type: none"> <li>• Class discussion questions</li> <li>• Shared reflection on experience</li> <li>• Lecture on effective reflection</li> <li>• Class Content</li> </ul>	<ul style="list-style-type: none"> <li>• Peer rubric reflection</li> <li>• Class discussion</li> <li>• Comments</li> </ul>
Lesson Plan Due: October 14	1, 2	5%	<ul style="list-style-type: none"> <li>• Lecture on lesson planning</li> <li>• In-class activities</li> </ul>	<ul style="list-style-type: none"> <li>• Lesson plan critique activity</li> </ul>
Midterm Exam Written October 11 in class	4, 5	15%	<ul style="list-style-type: none"> <li>• Class discussion questions</li> <li>• Student response system (SRS) questions</li> <li>• Class Content</li> </ul>	<ul style="list-style-type: none"> <li>• SRS questions</li> <li>• Review of questions</li> <li>• Sample Midterm</li> </ul>
Unit Plan Due: November 20	1, 2, 3, 4	30%	<ul style="list-style-type: none"> <li>• Lecture on effective unit planning</li> <li>• Critique of unit plans</li> <li>• Unit Planning reading</li> </ul>	<ul style="list-style-type: none"> <li>• Peer review</li> <li>• Monthly check in discussions</li> <li>• Critique of unit plans</li> </ul>



# Discussion:

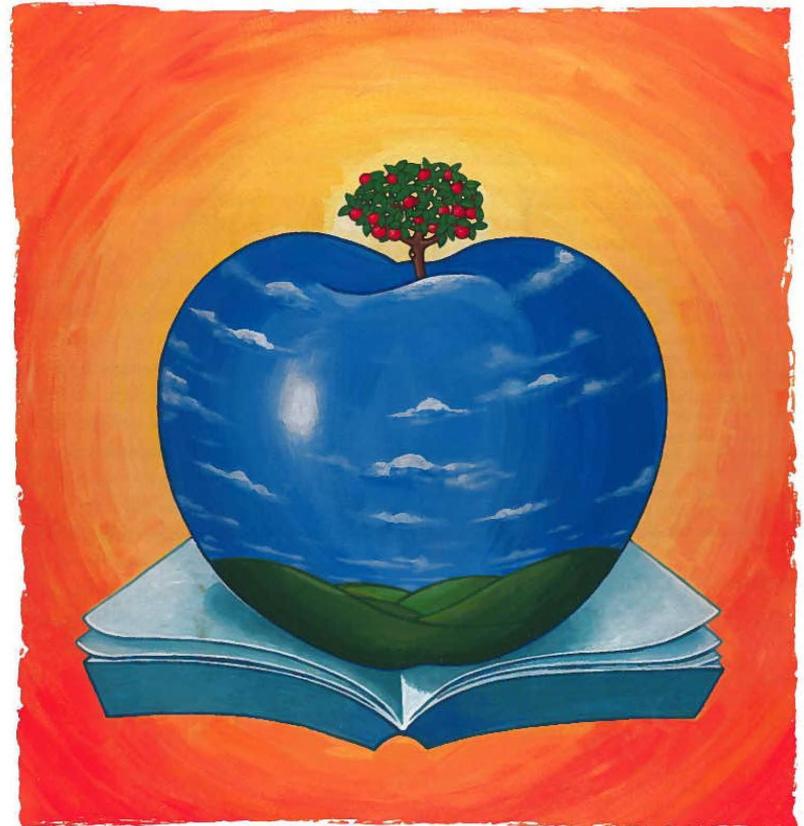
*Why is it important we give students formative assessments?*

*Why is it important these formative assessments reflect the summative assessments in a course?*



# Feedback Activity – Part 1

Write a short description of this image

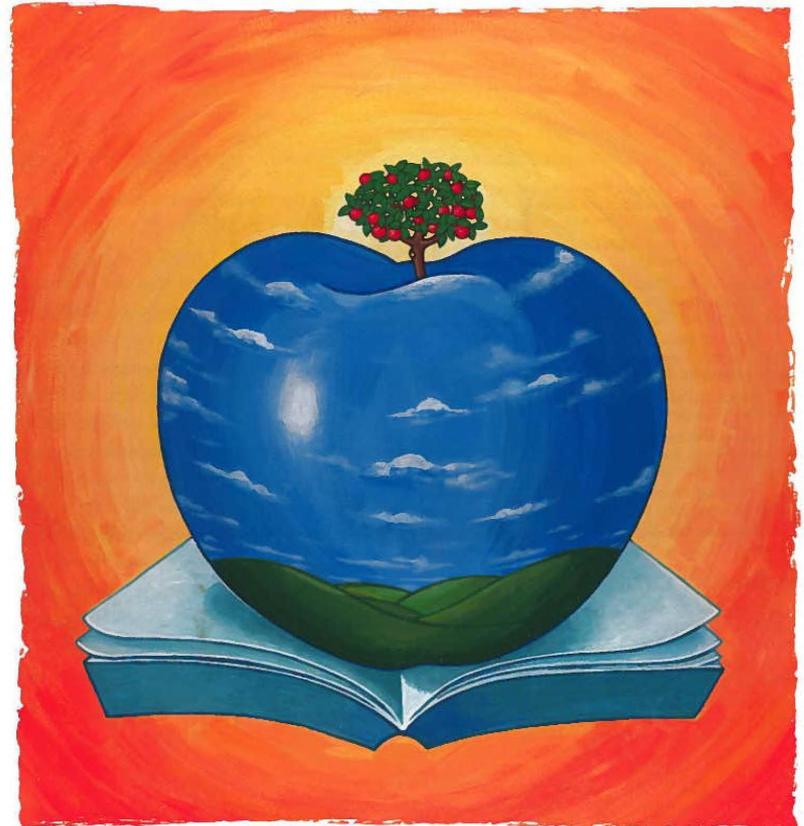


About Campus, Cover Image, Jan Feb 2003, vol 7, num 6



# Feedback Activity – Part 2

Pick up a  
description  
(not your own!)  
and provide  
feedback on it.



About Campus, Cover Image, Jan Feb 2003, vol 7, num 6



# Feedback Activity

What were some of the challenges you had with this activity?



# Challenges of formative feedback

- Students only want grades as a form of recognition (Students may perceive the comments as a justification of the grade (Glover & Brown, 2006))
- Too much continuous assessment, used for summative purposes, could result in assessment overload, anxiety about grades (Hernandez, 2012)
- Students may not recognize the ways in which feedback is provided – if not written directly to them personally, it has not happened
- Students should/need to be trained on how to develop skills to review their own work (Hernandez, 2012)
- Limited opportunity to enter into dialogue about feedback (Irons, 2008)



# More Challenges

- Providing appropriate feedback is hard!
- Comments are limited and often do not suggest how to improve student learning (Irons, 2008)
- Sometimes feedback is inappropriate or biased (i.e. giving positive feedback just to make students feel better)
- It is difficult to provide students thorough, effective feedback in a timely manner (Hernandez, 2012)



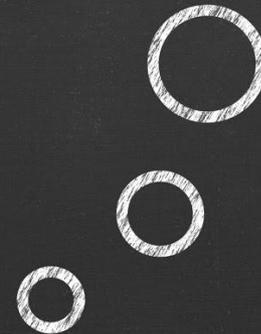
# A Key Aspect of Feedback

- “The crucial variable appears **not to be the quality** of the feedback (which is what teachers tend to focus on) but the **quality of student engagement with that feedback.**” (Gibbs, 2006, p.26)
- **feedback should be a two-way conversation:** it should take the form of assessment dialogues in an attempt to clarify the assessment process (Carless 2006).





How can I be fair in my  
feedback?



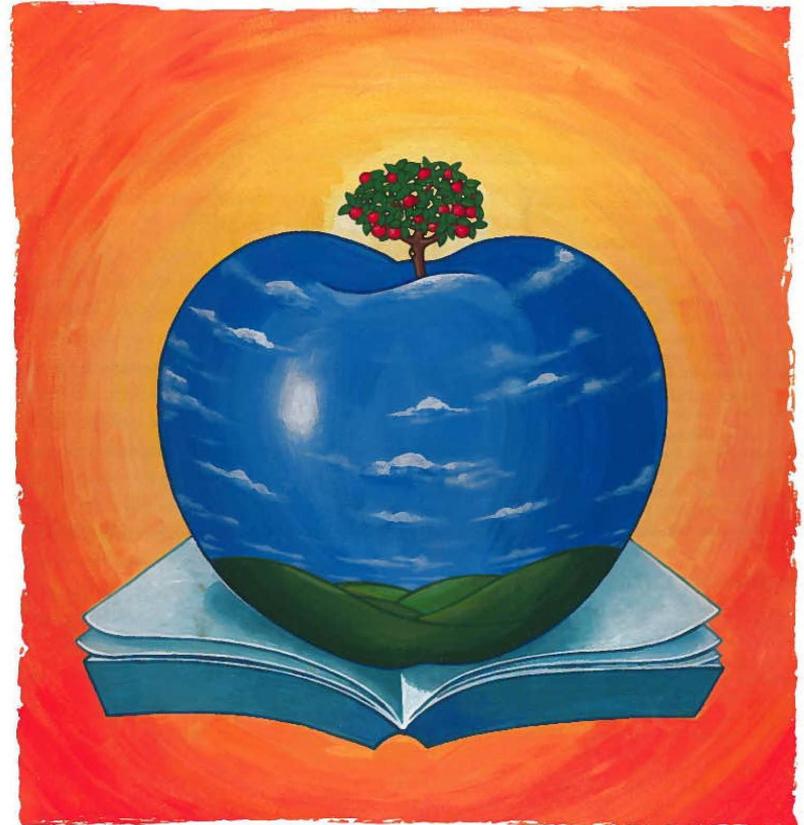
# Assessment Criteria

- Criteria should be based on the learning outcomes (clear and communicated) or other predefined criteria
- One should not assume students will understand a list of assessment criteria.
  - Feedback may need to be more **dialogical** to develop understandings of academic terms and appropriate practices.
  - A more thorough understanding of criteria may be achieved through the use of exemplars



# Feedback Activity – Part 3

- On a separate piece of paper, using the same 'assignment', establish 3 criteria to structure your feedback
  - (eg. Use of colour in description, creativity, etc.)
- Write 3 comments explaining how well these criteria were met
  - Strengths, weakness, options for improvement
- Remember to be clear, specific and constructive



About Campus, Cover Image, Jan Feb 2003, vol 7, num 6



# Feedback Activity – Part 4

- As a pair, discuss the nature of the feedback given. Some points you may want to talk about are:
  - Focus (task, process)
  - Function (descriptive, evaluative)
  - Clarity
  - Specificity
  - Tone and word choice
  - Future Suggestions



# The Analytic Rubric

- Separates different assessment criteria and addresses them **comprehensively**

Standards	5 - 4 Exemplary	3 - 2 Satisfactory	1 - 0 Unacceptable	Score	Weight	Total Score
Organization	Has an opening that catches audience's interest; maintains focus throughout; summarizes main points	to topic and gives outline of speech; is mostly organized; provides adequate "road map" for the listener	an irrelevant statement; gives listener no focus or outline of the presentation		X 2	
Content	Demonstrates substance and depth; is comprehensive; shows mastery of material	Covers topic; uses appropriate sources; is objective	Does not give adequate coverage of topic; lacks sources		X 2	
Quality of conclusion	Delivers a conclusion that is well documented and persuasive	Summarizes presentation's main points; draws conclusions based upon these points	Has missing or poor conclusion; is not tied to analysis; does not summarize points that support the conclusion		X 2	
Delivery	Has natural delivery; modulates voice; is articulate; projects enthusiasm, interest, and confidence; uses body language effectively	Has appropriate pace; has no distracting mannerisms; is easily understood;	Is often hard to understand; has voice that is too soft or too loud; has a pace that is too quick or too slow; demonstrates one or more distracting mannerisms		X 1.5	





**\*Helpful Adjectives and Adverbs  
for Rubric Construction**

<b>Not Meeting Expectations</b>	<b>Progressing</b>	<b>Proficient</b>	<b>Exemplary</b>
None	Fewer than ____	More than ____	All
Never	Seldom, rarely	Sometimes, often	Always
Incomplete	Less than complete	Somewhat complete	Complete
Inadequate	Less than adequate	Adequate	Superior
Unsatisfactory	Minimal	Satisfactory	Maximum
Unclear	Vague	Understandable	Articulate
Rarely clear	Sometimes unclear or inaccurate	Often clear, often accurate	Clear, accurate
...to an unacceptable level	...to a minimal level	...to an acceptable level	...to the highest level
Includes no elements of...	Includes few elements of...	Includes most elements of...	Includes all elements of...
Improper	Sometimes improper	Somewhat proper	Clear
Unclear	Somewhat unclear	Some degree of clarity	Proper
Inappropriate	Limited	Somewhat appropriate	Appropriate
Lacks enough of...	Minimal amount of...	Adequate number of...	All Necessary...
Inconsequential, Unimportant	Somewhat relevant	Important	Significant
Unnecessary	Somewhat useful	Essential	Critical, crucial
Illogical	Somewhat reasonable	Reasonable	Logical, rational
Random	Somewhat instinctive	Somewhat intuitive	Intuitive

# The Holistic Rubric

- Groups several different assessment criteria under grade headings.

## Letter Grade

## Descriptors

A	Always prepared and attends class. Participates constructively in class. Is a team player. Demonstrates initiative and improvement. Seeks to understand and acknowledge others' thoughts. Often reaches full potential if sufficiently challenged. Class assignments have something extra about them. Exceptional content knowledge. Demonstrates ability to integrate new knowledge into work. Challenges his/her own thoughts and ideas.
B	Usually prepared and attends class. Participates constructively in class, works well with others, and is a team player. Excellent content knowledge. Completes all class assignments. Demonstrates initiative and improvement. Seeks to understand and acknowledge others' thoughts. Stretches to reach full potential.
C	Sometimes prepared and attends class. Average content knowledge. Occasionally or only challenges thought when encouraged by others. Assignments reflect average work. Sometimes an active participant in class. Works well with others.
D	Rarely prepared or attends class. Rarely participates constructively in class. Assignments are late, incomplete, or not turned in at all. Low level of content knowledge. Does not strive to reach potential.



# The Single-Point Rubric

- The single point rubric *describes the target* and leaves room for reasons for not meeting or advancing beyond this criteria

Concerns  
(Areas that Need Work)

Criteria  
(Standards for this Performance)

Advanced  
(Evidence of Exceeding Standards)

**Knowledge of Issue:** The creator includes relevant words/phrases, meaningful symbols and other words to show a deep understanding of the issue.

**Argumentation:** Piece shows an opinion on the issue and uses symbols, mottos, etc. effectively to make an argument to the viewers/readers of the piece.

(Scores Below Meeting Criteria)

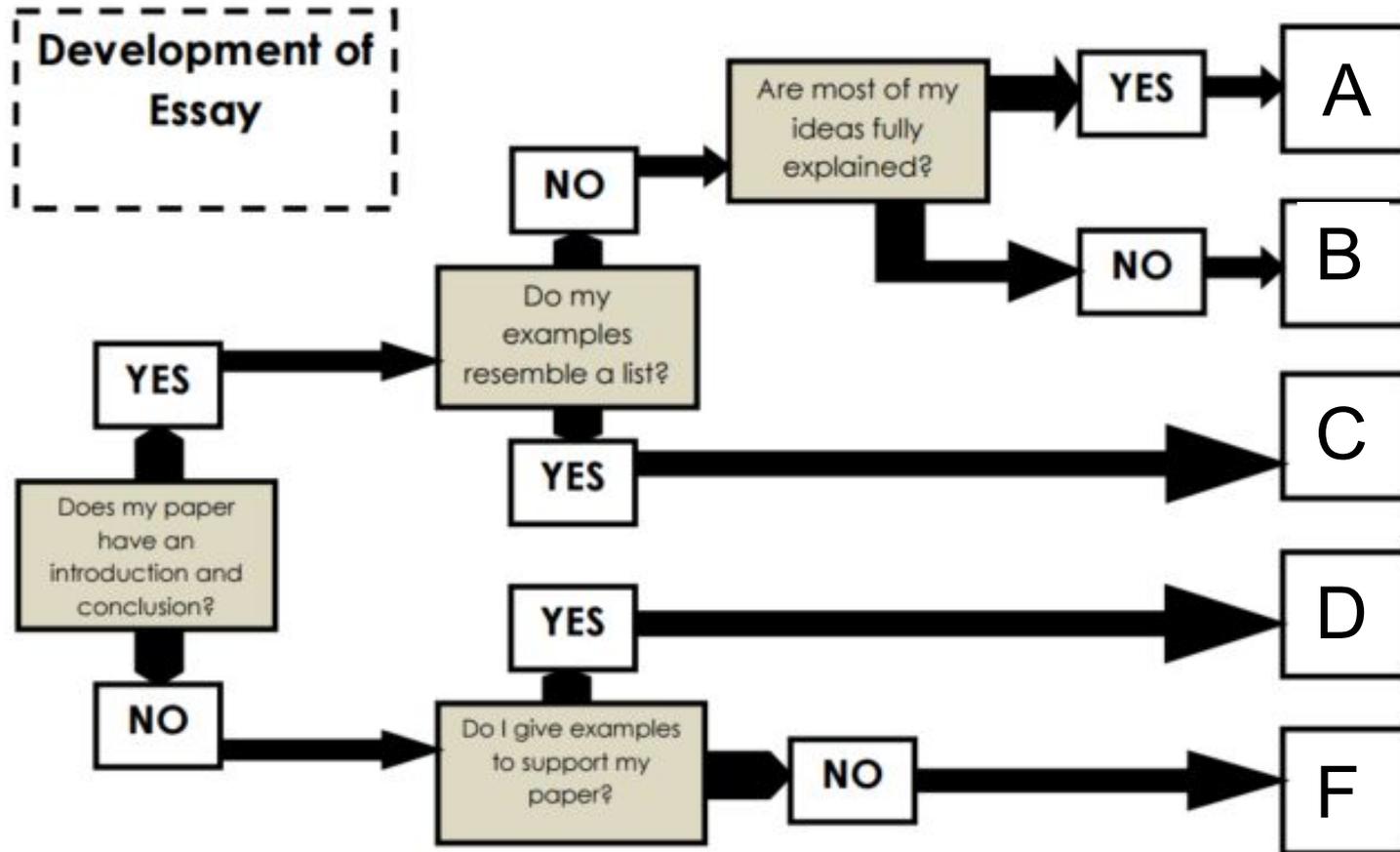
(Score of Meeting Criteria; usually around B)

(Scores Above Meeting Criteria)



# The Dichotomous Rubric

- Consists of major questions to be answered to give “levels of achievement”





## What my students get back....

	0-1-2-3	4-5-6-7	8-9-10
Analysis/Reflection	<ul style="list-style-type: none"> <li>- Some questions are not adequately addressed</li> <li>- Reasoning/rationale for most responses is not clear</li> <li>- Insufficient or simple examples provided</li> </ul>	<ul style="list-style-type: none"> <li>- Most questions are fully addressed</li> <li>- Where appropriate reasoning/rationale for most responses is provided</li> <li>- General examples are provided and are discussed</li> </ul>	<ul style="list-style-type: none"> <li>- Each question is fully and professionally addressed and supporting evidence provided</li> <li>- Where appropriate reasoning/rationale for responses is provided -- Specific, relevant and concrete examples provided and discussed</li> </ul>
Strategies and questioning	<ul style="list-style-type: none"> <li>- Rationale for the strategy chosen hard to identify</li> <li>- Reflection of the effectiveness of the questioning within the lesson is discussed, but vague or unclear</li> </ul>	<ul style="list-style-type: none"> <li>- Rationale for the strategy chosen is identified</li> <li>- Reflection of the effectiveness of the questioning within the lesson is discussed</li> </ul>	<ul style="list-style-type: none"> <li>- Clear rationale for the strategy chosen is identified in an effective and apparent manner</li> <li>- Reflection of the effectiveness of the questioning within the lesson shows deep understanding</li> </ul>
Overall clarity, communication and referencing.  (Section grade divided by 2; total mark is out of 5)	<ul style="list-style-type: none"> <li>- Responses lack clarity or are organized in a haphazard way,</li> <li>- Several grammar or referencing errors may be present.</li> </ul>	<ul style="list-style-type: none"> <li>- Responses are somewhat clear and are organized in a methodical way</li> <li>- Grammar or referencing errors may be present.</li> </ul>	<ul style="list-style-type: none"> <li>- Responses are clear, concise, and organized in a purposeful way.</li> <li>- Proper grammar and referencing are used throughout.</li> </ul>

# Summary

Basic principles of formative feedback:

- ❑ Feedback should measure (give guidance to) the student's current learning state
- ❑ Formative assessment should be used as a means for closing the gap between the student's learning state and the learning goals
- ❑ Formative feedback needs to be high quality and effective in its advice (Black, 1999)
- ❑ Rubrics can be helpful in guiding self, peer, and instructor feedback.



## References & Useful Readings

- Gonzalez, J. (n.d.). Your rubric is a hot mess; Here's how to fix it. *Brilliant or Insane: Education on the Edge [weblog]*. Accessed Sept. 6, 2016 at <http://www.brilliant-insane.com/2014/10/single-point-rubric.html>
- Soiferman, L. K. (2015). Understanding the effectiveness of rubrics from the students' point of view. *Online Submission (ERIC)*.
- Stevens, D. D., & Levi, A. J. (2011). *Introduction to rubrics: An assessment tool to save grading time, convey effective feedback, and promote student learning*. Stylus Publishing, LLC.
- Mertler, C. A. (2001). Designing scoring rubrics for your classroom. *Practical Assessment, Research & Evaluation*, 7(25), 1-10.
- More at <https://goo.gl/z5iy7Z>



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**QUESTIONS?**