OUT OF THE MATRIX

Who are we?

- Lecturers?
- Coordinators?
- Researchers?
- Students
- All of the above?
- Something else?

Rubrics

+ learning models/ taxonomies

A rubric is a coherent set of criteria for students' work that includes descriptions of levels of performance quality for the criteria (Brookhart, 2013)

Rubrics

Rubric for blogging tasks:

educational origami — Bloom's Digital Taxonomy

Blog Journalling Rubric

Bloom's Taxonomic Level: **Understanding**

Relevant Key Words: Interpreting, Summarising, inferring, comparing, explaining, exemplifying, blog journalling, commenting

Introduction:

This is a rubric for the Blog journalling. This is examining the process of recording and reporting events and process using blogging tools. Blog journalling here, is used as a form of reflective practice for class activities and learning rather than for personal journalling.

	Blogging	Understanding	Timeliness
1	The entry or entries have poor spelling and contain grammatical errors, they are short, typically 1 to 2 sentences. They lacks structure and or flow. The entry appear to be hastly written often using in informal language or text style abbreviations.	These simple entries lacks insight, depth or are superficial. The entries are short and are frequently irrelevant to the events.They do not express opinion clearly and show. little understanding.	The entries are irregular. Events are not journaled as they occur.
2	Some of the entries have poor spelling and contain grammatical errors. The entries have some structure. But the entries does not have consistent flow or show linkage/cohesion between entries. The blog entry may contain a link or image.	The blog journal posts show some insight, depth & are connected with events, topic or activity. Entries are typically short and may contain some irrelevant material. There are some personal comments or opinions which may be on task. The posts shows some understanding of the topic.	The entries have some timeliness with most key events being journalled. Some comments are replied to.
3	There are few spelling and grammatical errors. The journal entries have structure. The posts flow and have linkage/cohesion between the entries The journal posts contains appropriate links or images. These are referred to within the text.	The posts show insight & depth. The content of posts are connected with events, topic or activity. These journal entries may contain some irrelevant material but are for the most part on task. The student's.personal opinion is expressed in an appropriate style & these entries shows a good depth of understanding.	Most events are journalled as they happen. Most comments are replied to in a timely manner. The reply shows understanding
4	The spelling and grammatical errors are rare. The journal entries have structure and are formatted to enhance readability. The entries flows and have linkage/cohesion between posts.The posts contains appropriate links or images, with the image sources being acknowledged. The images and links are referred to within the text.	The blog journal posts show insight, depth & understanding. They are connected with events, topic or activity. Entries are relevant with links to supporting material. The student's personal opinion is expressed in an appropriate style & is clearly related to the topic, activity or process. The posts and opinions shows a high level of understanding & they relates events, learning activities & processes to the purpose of the activity and outcomes.	All events are journalled these are regular & timely. Comments are replied to in a timely manner. The replies show a depth of understanding & relate to the comments

http://edorigami.wikispaces.com/Bloom's+Digital+Taxonomy

What is your current view of rubrics?

Discuss and make notes on what you know about them and what experiences you have had using them.

Analytic and Holistic rubrics

There are two types of Rubric, analytic and holistic

Holistic

Table 1:
Template for Holistic Rubrics

Score	Description
5	Demonstrates complete understanding of the problem. All requirements of task are included in response.
4	Demonstrates considerable understanding of the problem. All requirements of task are included.
3	Demonstrates partial understanding of the problem. Most requirements of task are included.
2	Demonstrates little understanding of the problem. Many requirements of task are missing.
1	Demonstrates no understanding of the problem.
0	No response/task not attempted.

Analytic

Table 2:
Template for analytic rubrics

	Beginning 1	Developing 2	Accomplished 3	Exemplary 4	Score
Crit. #1	Description reflecting beginning level of performance	Description reflecting movement toward mastery level of performance	Description reflecting achievement of mastery level of performance	Description reflecting highest level of performance	
Crit. #2	Description reflecting beginning level of performance	Description reflecting movement toward mastery level of performance	Description reflecting achievement of mastery level of performance	Description reflecting highest level of performance	
Crit. #3	Description reflecting beginning level of performance	Description reflecting movement toward mastery level of performance	Description reflecting achievement of mastery level of performance	Description reflecting highest level of performance	
Crit. #4	Description reflecting beginning level of performance	Description reflecting movement toward mastery level of performance	Description reflecting achievement of mastery level of performance	Description reflecting highest level of performance	

Covers everything in one rubric
for example 'written communication'

Breaks down marks into levels and criteria
for example 'Clarity' , 'Grammar', 'Structure', 'ideas'
Each area marked from 1- 4 with descriptors

Holistic assessment is often associated with connoisseurship and tacit judgement and cast as the polar opposite of analytic assessment which deploys marking criteria.

However, it is also acknowledged that these forms of assessment are productively practised in tandem.
(Sabri, 2011)

Sabri, D. (2011) *An Evaluation of marking criteria at the University of the Arts, London*. Available at: http://www.arts.ac.uk/media/arts/about-ual/teaching-and-learning-exchange/new---shared-practice/An-Evaluation-of-marking-criteria-at-UAL.pdf

Rubrics, definitions:

"an authoritative rule"

....

"a guide listing specific criteria for grading or scoring academic papers, projects, or tests."

Rubrics

The word *rubric* comes from the Latin word for *red*.

In the Middle Ages the rules for the conduct of liturgical services were printed in red

Create — Combining parts to make a new whole

Evaluate — Judging the value of information or ideas

Analyze — Breaking down information into component parts

Apply — Applying the facts, rules, concepts, and ideas

Understand — Understanding what the facts mean

Remember — Recognizing and recalling facts

BLOOMS TAXONOMY

EVALUATION	Assessing theories; Comparison of ideas; Evaluating outcomes; Solving; Judging; Recommending; Rating
SYNTHESIS	concepts to create new ideas; and Invention; Composing; Imagining; Modifying; Predicting; Combining
ANALYSIS	Identifying and analyzing patterns; Organisation of ideas; recognizing trends
APPLICATION	n applying knowledge; blem solving methods; ting; Designing; Experimenting
COMPREHENSION	Understanding; Translating; Summarising; Demonstrating; ussing
KNOWLEDGE	Observation; ating; Naming

Complete weekly exercise goals.

Gilly Salmon 5 Stage Model

DEVELOPMENT — Supporting responding

5 — Facilitating task and supporting use of learning materials — Providing links outside closed conferences — KNOWLEDGE CONSTRUCTION — Facilitating process

Searching personalising software — INFORMATION EXCHANGE — 4 — Conferencing

3 — ONLINE SOCIALISATION — Familiarising and providing bridges between cultural, social and learning environments

2 — Sending and receiving messages

1 — ACCESS AND MOTIVATION — Setting up system and accessing — Welcoming And Encouraging

iPadagogy Wheel
Originally discovered on the website of Paul Hopkins' education consultancy site mmiweb.org.uk adopted by Allan Carrington at the University of Adelaide and further modified for teachers at Zealand Public Schools.

BLOOM'S TAXONOMY – LEARNING IN ACTION

CRITICAL THINKING SKILLS

1 Knowledge — Identification and recall of information	define, fill in the blank, list, identify	label, locate, match, memorize	name, recall, spell, tell, underline	state
	Who _____? What _____? Where _____? When _____?		How _____? Describe _____? What is _____?	
2 Comprehension — Organization and selection of facts and ideas	convert, describe, explain	interpret, paraphrase, put in order	restate, retell in your own words, rewrite	summarize, trace, translate
	Re-tell _____ in your own words. What is the main idea of _____?		What differences exist between _____? Can you write a brief outline?	
3 Application — Use of facts, rules, and principles	apply, compute, conclude, construct	demonstrate, determine, draw, find out	give an example, illustrate, make, operate	show, solve, state a rule or principle, use
	How is _____ an example of _____? How is _____ related to _____? Why is _____ significant?		Do you know of another instance where _____? Could this have happened in _____?	
4 Analysis — Separating a whole into component parts	analyze, categorize, classify, compare	contrast, debate, deduct, determine the factors	diagram, differentiate, dissect, distinguish	examine, infer, specify
	What are the parts or features of _____? Classify _____ according to _____. Outline/diagram/web/map _____.		How does _____ compare/contrast with _____? What evidence can you present for _____?	
5 Synthesis — Combining ideas to form a new whole	change, combine, compose, construct, create, design	find an unusual way, formulate, generate, invent, originate, plan	predict, pretend, produce, rearrange, reconstruct, reorganize	revise, suggest, suppose, visualize, write
	What would you predict/infer from _____? What ideas can you add to _____? How would you create/design a new _____?			
6 Evaluation — Developing opinions, judgements, or decisions	appraise, choose, compare, conclude	decide, defend, evaluate, give your _____		
	Do you agree that _____? Explain. What do you think about _____? What is most important?			

Applying Bloom's Taxonomy in Your Classroom

1. REMEMBER
Students are expected to retrieve information from memory, but aren't expected to change it in any way.

In-Class Instruction
Students memorize a definition of an associative property.

Assessment
Students are given a multiple choice question and asked to recognize the answer, or are asked to recall the answer and fill in a blank.

2. UNDERSTAND
Students are building new connections in their minds.

In-Class Instruction
Students identify the key characteristics needed for an organism to survive in a particular ecosystem.

Assessment
When given the description of a fictitious animal, students explain whether the animal will survive in a given ecosystem.

3. APPLY
Certain procedures or steps are expected to be followed in order to answer new problems.

In-Class Instruction
Students learn about Newton's three laws.

Assessment
Students are asked to examine the information about a car crash and determine which if any of Newton's laws apply to the situation.

4. ANALYZE
Students utilize lower-level thinking skills to identify key elements and examine each part.

In-Class Instruction
Students read a student lab report and identify the evidence to support the finding.

Assessment
Read the results of the scientific study and find supporting statements for each conclusion or finding.

5. EVALUATE
Informational sources are examined to assess their quality and decisions are made based on identified criteria.

In-Class Instruction
Students read about the physical effects of exercise on humans.

Assessment
Read an article about a famous athlete. Identify one piece of information in the article that fails to support the author's case that hard work was the main reason for the athlete's exceptional athletic skills.

6. CREATE *new!*
Learners organize information in a new or different way.

In-Class Instruction
Students research the role of economics in business.

Assessment
Students brainstorm reasons for a problem and generate suggested solutions, and design and implement a campaign designed to solve the identified problem.

Adapted from
Assessing Critical Thinking in Middle and High Schools: Meeting the Common Core and Assessing Critical Thinking in Elementary Schools: Meeting the Common Core by Rebecca Stobaugh
www.eyeoneducation.com

Can you...

A BLOOMING ORANGE

Higher Order Thinking Skills

Evaluation — Make and defend judgments based on internal evidence or external criteria.

Synthesis — Compile component ideas into a new whole or propose alternative solutions.

Analysis — Break down objects or ideas into simpler parts and find evidence to support generalizations.

Application — Apply knowledge to actual situations.

Comprehension — Demonstrate an understanding of the facts.

Knowledge — Remember previously learned information.

EDUCATIONAL OBJECTIVE LEVEL — MENTAL ACTIVITY
Evaluation, Synthesis, Analysis, Application, Comprehension, Knowledge
COGNITIVE DOMAIN
Figure 1-4. Dr. Bloom's hierarchical taxonomy for the cognitive domain (knowledge) includes six educational objective levels.

Instructional Design — Student Thinking
Use Bloom's Spiraling — Use every level strategically
Asynchronous Collaboration — B.Y.O.M. (Bring Your Own Media)
Connectivity — Digital Media

TeachThought

Specifically for online learning

Gilly Salmon
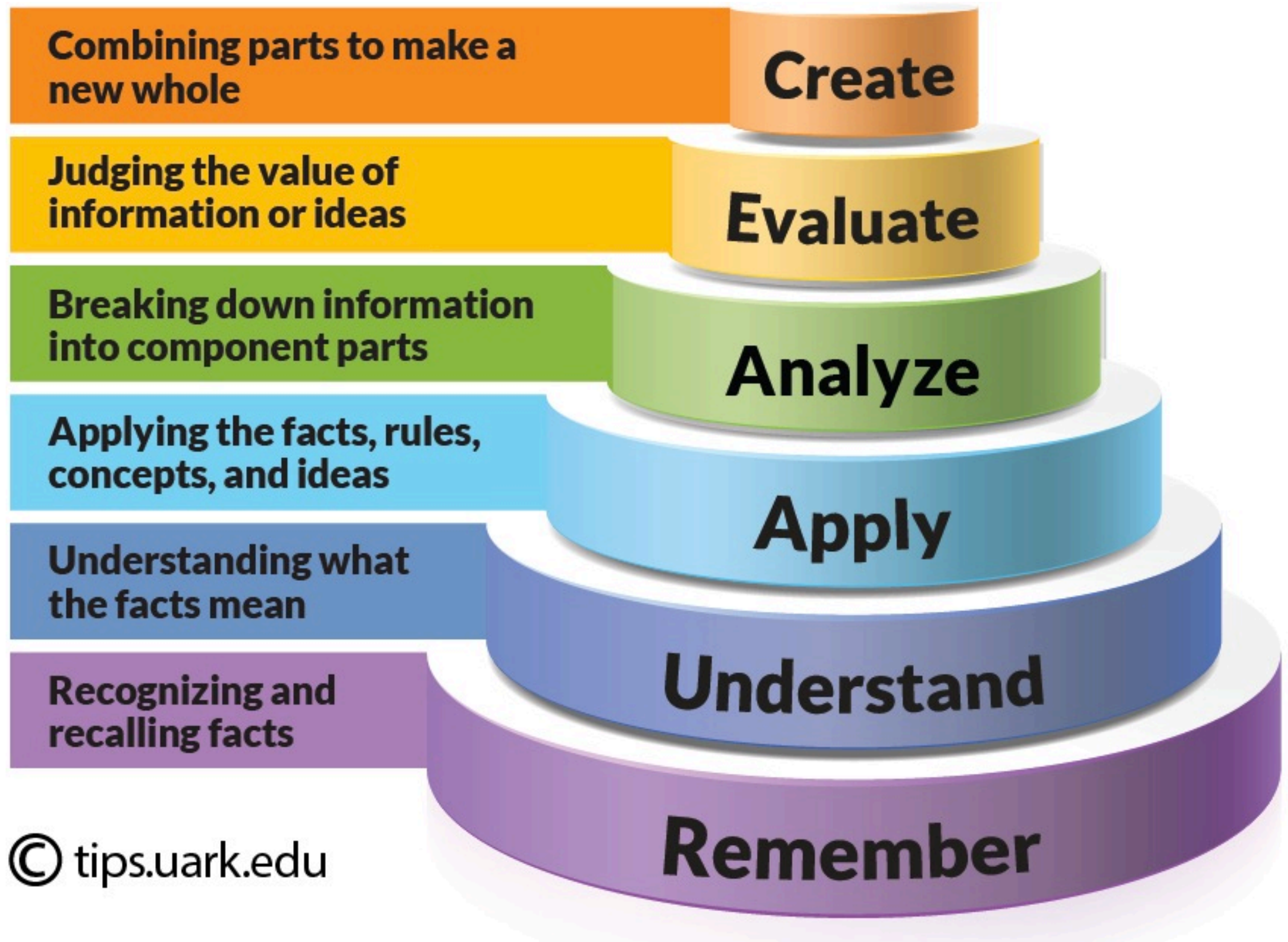5 Stage Model

THE UNIVERSITY OF
WESTERN
AUSTRALIA

Student voice on Rubrics

Significant numbers of students still don't understand marking criteria or feedback, qualitative feedback implies an ambivalence towards the criteria?

... yes you want to be a good student, but ... you get drawn into it and you forget about paper marking stuff like that. They do present it to us but really I'm training to be [a practitioner] rather than be able to step back and say I'm a [practitioner] because I can do that, that, and that

Sometimes with some students the brief is there but they don't concentrate on the detail, on the criteria and those boxes and stuff. I don't consciously try to do what's in those boxes – that's more towards the end.

........At the end you might just look at the criteria – just before you hand in maybe the week before. You might step back a bit and add in stuff

Sabri, 2011

Combining parts to make a new whole — **Create**

Judging the value of information or ideas — **Evaluate**

Breaking down information into component parts — **Analyze**

Applying the facts, rules, concepts, and ideas — **Apply**

Understanding what the facts mean — **Understand**

Recognizing and recalling facts — **Remember**

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Bloom's Digital Taxonomy & the Communication Spectrum

In Human history we have seen many different ages, the dark ages, the middle ages and more recently the space and information ages. We live in a time that might best be described as the **communication age**. We are always connected, always available and constantly communicating and collaborating across a spectrum of activities with increasing levels of complexity and creativity.

Creating

Evaluating

Analysing

Applying

Understanding

Remembering

Texting
Instant Messaging
Chatting
Microblogging/tweeting
emailing
Contributing
Commenting
Replying
Reviewing
Moderating
Debating
Posting & Blogging
Presenting
Performing
Negotiating
Collaborating
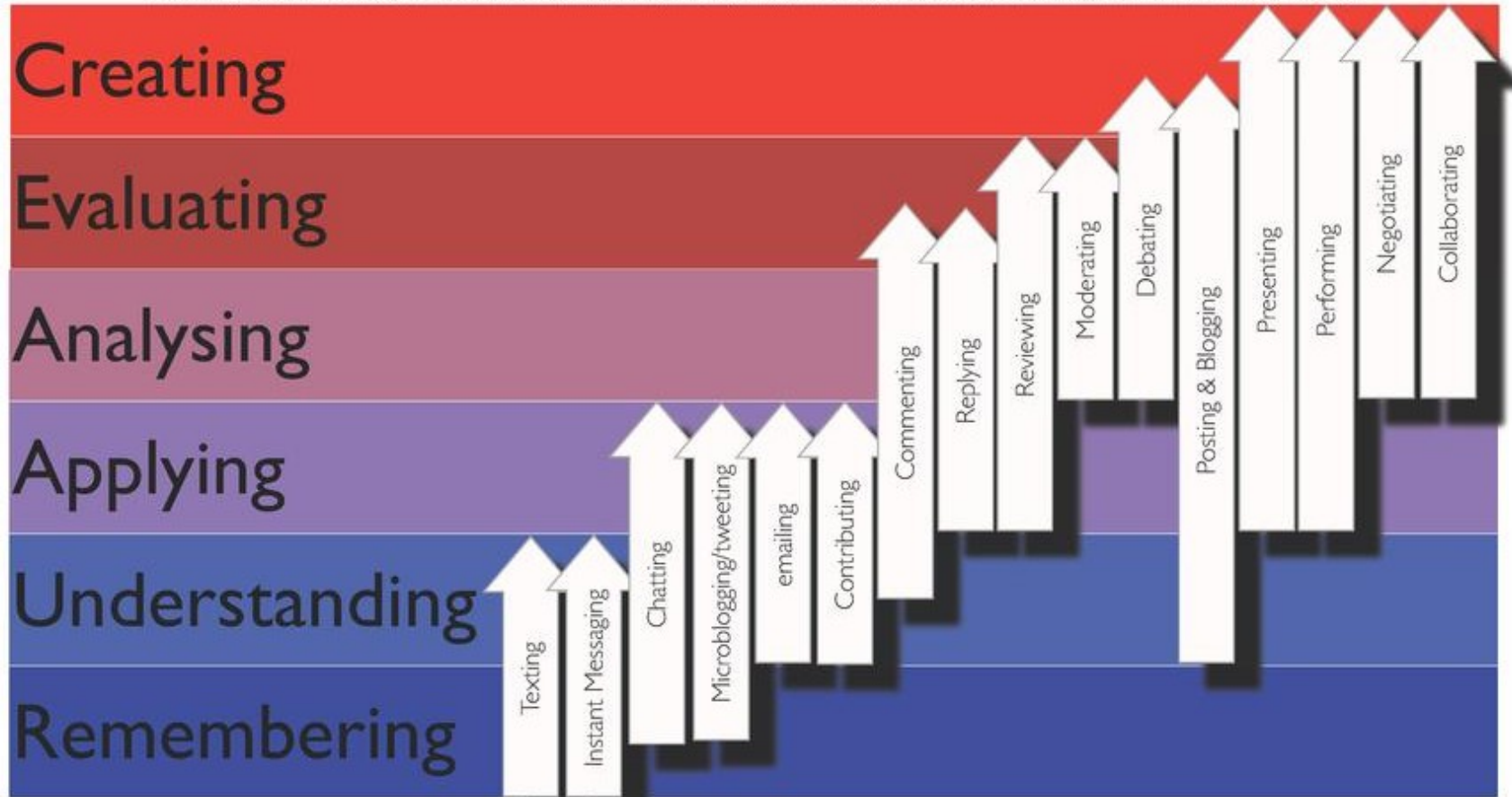
Collaboration is not a 21st Century skill, it is a 21st Century essential.

Andrew Churches

http://edorigami.wikispaces.com/Bloom's+Digital+Taxonomy

Arts?

Essentially open ended?

… the kinds of transitions we are considering are not linear, not the learning of simple isolated concepts, they are messy, abstract transformations. ….(Land et al , 2014)

Reflective thinking, in short, means judgement suspended during further inquiry; and suspense is likely to be somewhat painful. (2014)

Alternative, non-linear taxonomies: periods of conceptual uncertainty (Land et al, 2014) – what kind of rubrics for these?
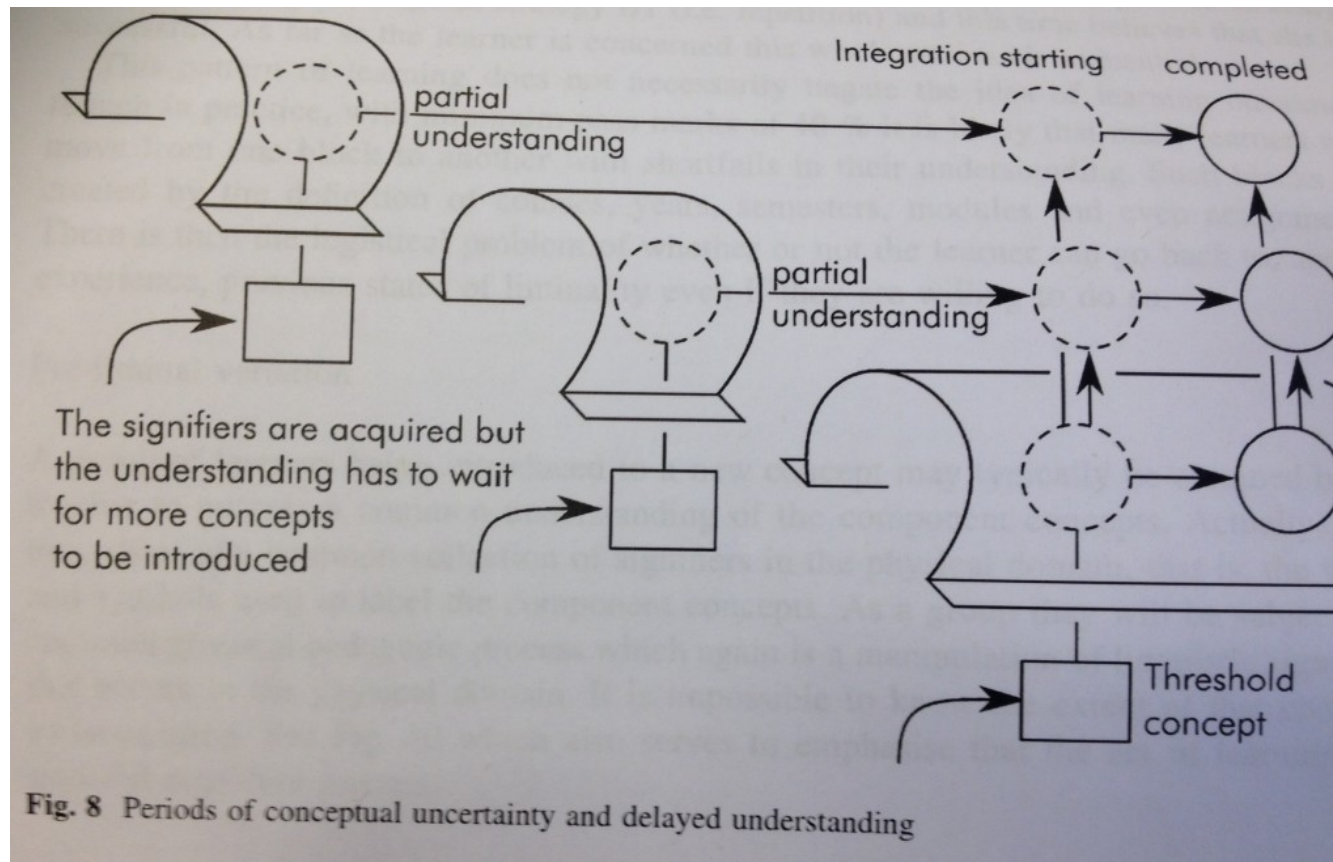
Fig. 8 Periods of conceptual uncertainty and delayed understanding

Land, R., Rattray, J. & Vivian, P. (2014). Learning in the Liminal Space: A Semiotic Approach to Threshold Concepts. *Higher Education* 67(2): 199-217.

What about the creative potential of the liminal/unknown space:

…we're not talking here about our students coming out of this liminal space..this liminality, whatever . We're saying we want them to stay in it.

We want them to stay precisely in that fluid state. That complexity ... that emergence, because in that way their ideas won't become crystallised, they won't harden and get stylised. Their ideas will stay emergent ...provisional, exploratory ... Still with lots of unexplored possibilities. Fresh. That's what we want. (Lecturer, Art School)

(Land et al, 2014).

Can we create rubrics and taxonomies for the unknown?

How do rubrics/taxonomies work in an art school context?

with uncertainty?
or experiment
or failure?

Can you design an analytical rubric to promote failure – trying and failing and learning from that failure – for example designing a rubric for a workshop that helps 'student ideas to stay emergent ...provisional, exploratory ... with lots of unexplored possibilities. Fresh' (2014)

To write or select rubrics we need to focus on the criteria by which learning will be assessed:
General or task specific?
Analytic or holistic?

Description of Performance: General or Task-Specific?			
General	• Description of work gives characteristics that apply to a whole family of tasks (e.g., writing, problem solving).	• Can share with students, explicitly linking assessment and instruction. • Reuse same rubrics with several tasks or assignments. • Supports learning by helping students see "good work" as bigger than one task. • Supports student self-evaluation. • Students can help construct general rubrics.	• Lower reliability at first than with task-specific rubrics. • Requires practice to apply well.
Task-Specific	• Description of work refers to the specific content of a particular task (e.g., gives an answer, specifies a conclusion).	• Teachers sometimes say using these makes scoring "easier." • Requires less time to achieve inter-rater reliability.	• Cannot share with students (would give away answers). • Need to write new rubrics for each task. • For open-ended tasks, good answers not listed in rubrics may be evaluated poorly.

Source: From *Assessment and Grading in Classrooms* (p. 201), by Susan M. Brookhart and Anthony J. Nitko, 2008, Upper Saddle River, NJ: Pearson Education. Copyright 2008 by Pearson Education. Reprinted with permission.

Figure 1.2. Advantages and Disadvantages of Different Types of Rubrics

Type of Rubric	Definition	Advantages	Disadvantages
Holistic or Analytic: One or Several Judgments?			
Analytic	• Each criterion (dimension, trait) is evaluated separately.	• Gives diagnostic information to teacher. • Gives formative feedback to students. • Easier to link to instruction than holistic rubrics. • Good for formative assessment; adaptable for summative assessment; if you need an overall score for grading, you can combine the scores.	• Takes more time to score than holistic rubrics. • Takes more time to achieve inter-rater reliability than with holistic rubrics.
Holistic	• All criteria (dimensions, traits) are evaluated simultaneously.	• Scoring is faster than with analytic rubrics. • Requires less time to achieve inter-rater reliability. • Good for summative assessment.	• Single overall score does not communicate information about what to do to improve. • Not good for formative assessment.

Finish by completing a rubric for 'ideas will stay emergent ...provisional, exploratory ... Still with lots of unexplored possibilities. Fresh'

which type will be best? General or task specific?
Analytic or holistic?

Grid provided... or blank paper – does it have to be a grid?

what are your goals?
What are your criteria for achieving them and ranges (i.e 1-4, Excellent – fail?)

Anything to take home?

What evidence would it take to convince us that using rubrics with learning-based criteria in teaching enhances learning and improves students' skills as well?

How can you get that evidence into your own teaching?

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