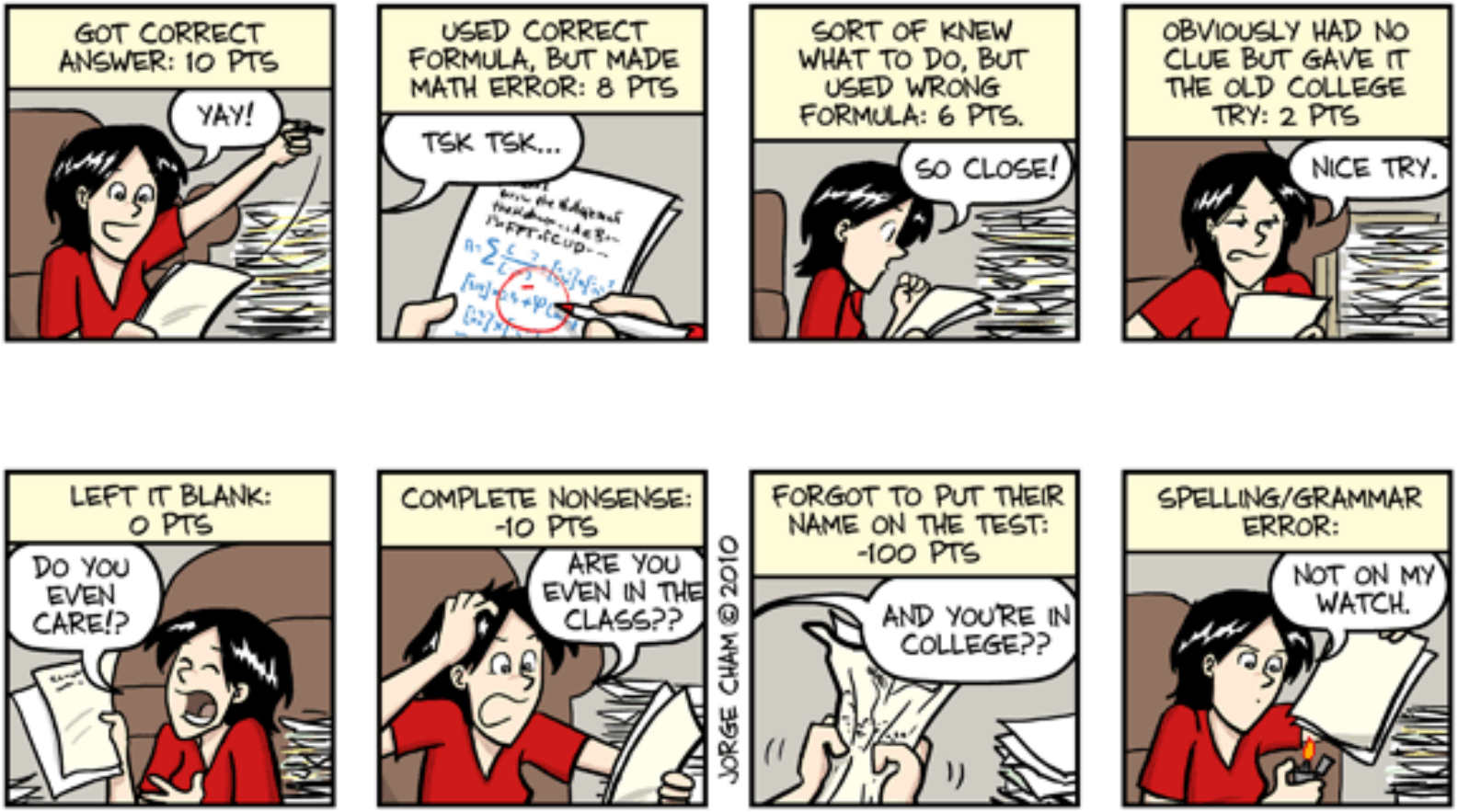
GRADING RUBRIC

PROBLEM 1 (TOTAL POINTS: 10)



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AGSEM TA Training

Grading and Feedback in the Sciences

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Saturday, November 12, 2016

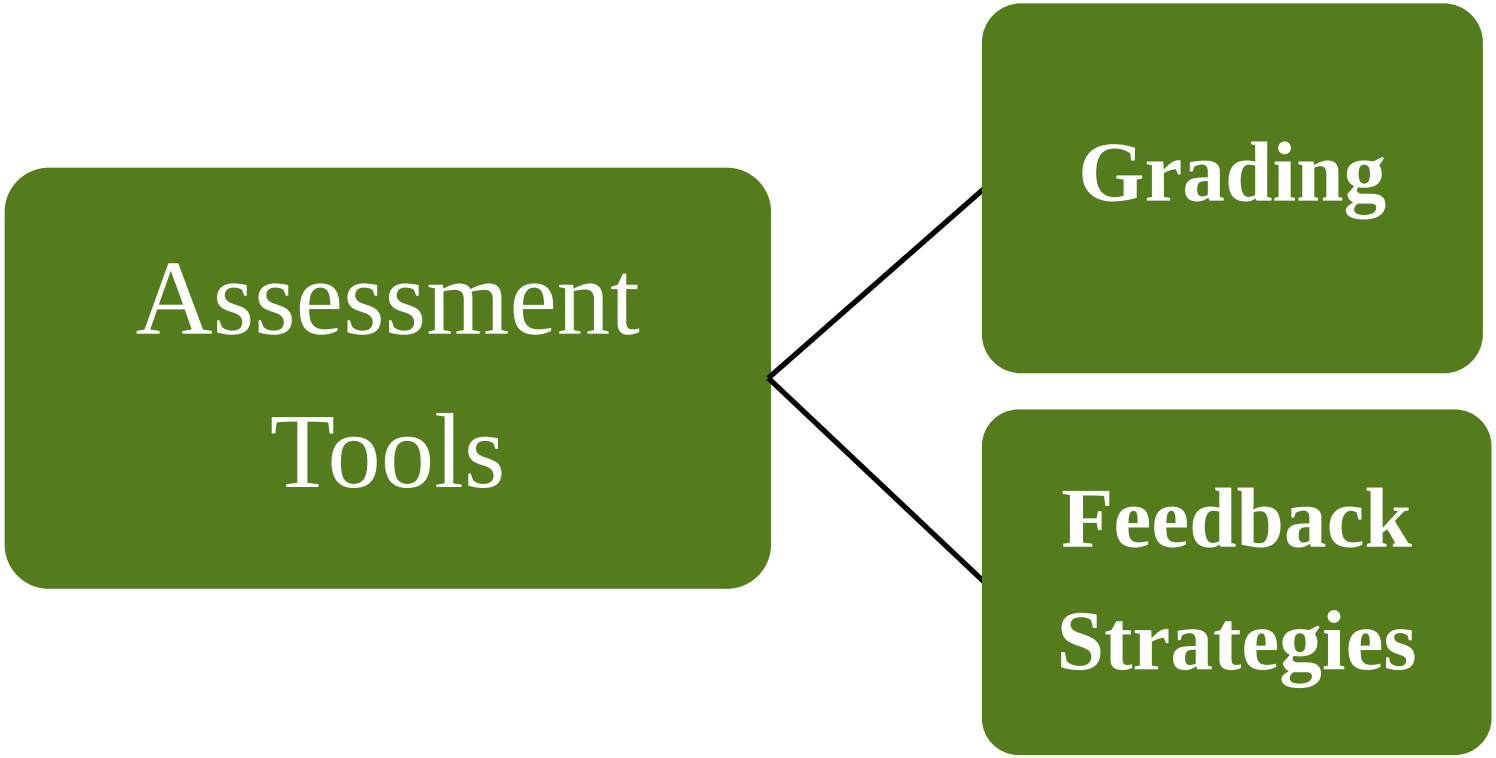
T-PULSE

Tomlinson Project in University-level Science Education

www.mcgill.ca/tpulse

- Run 2-day Fall and Winter teaching workshops
  - *Next workshop in February, don't miss it!*
- Teaching Techniques for Instructors Workshop
- Learning techniques workshop (for undergraduates)

Overview



Grading and Feedback Concerns

Task:

- **Team A:** Answer the question below from an undergraduate **student's** perspective.
- **Team B:** Answer the question below from a **grader's** perspective.

What are your **concerns** about grading and feedback?

Grading and Feedback Concerns

Concerns are similar!

- Time
- Fairness and consistency
- Provides guidance for improvement

Learning Objectives

At the end of this session, you will be able to:

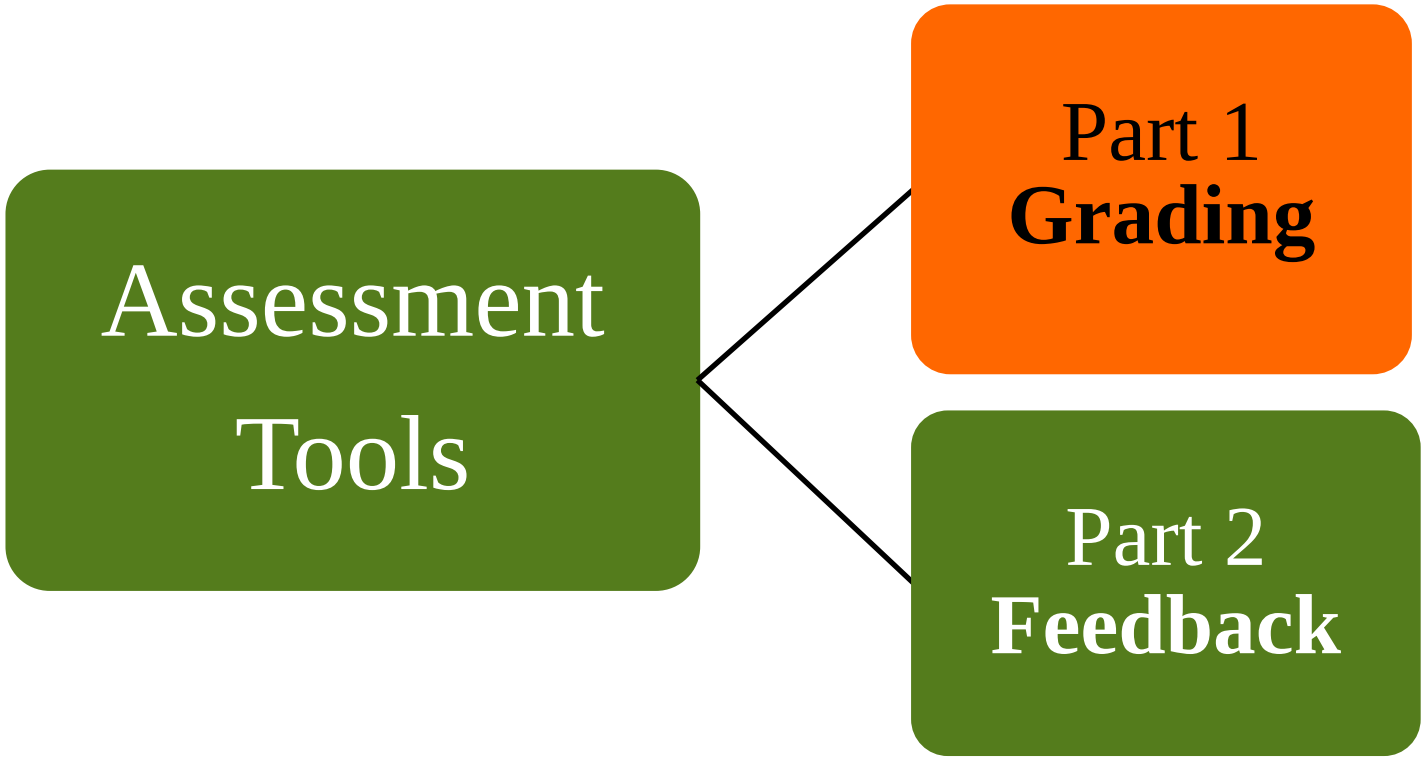
1. ***Identify*** reasons for developing criteria and standards for grading
2. ***Elaborate*** grading rubrics for a range of different tasks
3. ***Develop*** effective feedback strategies for different grading situations

The Awesome Power of Assessment

Assessment shapes the way our students approach learning: how they study, how they work on homework, how they collaborate...

Let's take advantage of this and use **grading & feedback** to bring about positive change in student performance.

Overview



Grading an Essay Question

Task:

Individually, grade essay question of student A **(out of 12)**.

Be quick and just do your best.

What grade did you give them?

Grading an Essay Question

Task:

Individually, grade essay question of student A **(out of 12, again)** with the rubric.

Interpret the rubric as you see fit.

Now, what grade did you give them?

Rubrics

- Grading inevitably involves difficult decisions; you're making an informed, professional judgment.
- A **grading rubric** establishes and documents the criteria and standards on which you base your judgment.

Rubric Example: Traits and Scales for Evaluating a Novice Baker's Chocolate Chip Cookies.

Trait	**Level of Performance**	**Grade**
Baking Time	All cookies are golden brown	2/2
	Half are golden brown	1/2
	Most cookies are burnt	0/2
Chocolate Chips	Chocolate chips are present	5/5
	Chocolate chips are absent	0/5

Rubric Example: Traits and Scales for Evaluating an Essay (style)

Criteria	Sub-criteria	Excellent (90-100%)	Good (70-90%)	Average (50-70)	Unacceptable (0-50%)
2. Style (25%)	2.1 Clarity of expression (5%)	The report is very clearly written and ideas are expressed concisely, precisely, and eloquently.	The report is well written and easy to follow. Some sentences could be more concise.	Many sentences could be expressed more clearly,	It is hard to read and understand the meaning of many sentences. Reading is chunky.
	2.2 Quality of grammar and spelling (7.5%)	No mistake in grammar and spelling.	Only minor or very few mistakes in the spelling and grammar.	There are a few noticeable mistakes in spelling or grammar.	Grammar and spelling mistakes hinder the reading of the report.
	2.3 Organization and structure of the report (7.5%)	The flow of the text is engaging and the organization of the report contributes to overall clarity.	The structure could be improved slightly in a few places.	The text should be rearranged to flow more and help understanding. Some transitions between sections are missing.	The essay doesn't seem to contain a logical flow, hard to follow the student's line of thought.
	2.4 Respect of the guidelines (2.5%)	All guidelines are appropriately followed.	One or two guidelines were overlooked.	A few guidelines not respected.	Many guidelines not respected.
	2.5 Citation format (2.5%)	All citations are formatted consistently with the style chosen and contain no errors.	Minor mistakes in the formatting of the citations. All elements included.	A few elements are missing or errors are present in more than one citation.	Many elements are missing and errors are present in the citations.

Rubric Example: Traits and Scales for Evaluating Citation Format

Ensure that your colleagues understand criteria the same way you do!

Sub-criteria	**Excellent (90-100%)**	**Good (70-90%)**	**Average (50-70)**	**Unacceptable (0-50%)**
2.5 Citation format (2.5%)	All citations are formatted consistently with the style chosen and contain no errors.	Minor mistakes in the formatting of the citations. All elements included.	A few elements are missing or errors are present in more than one citation.	Many elements are missing and errors are present in the citations.

Grades (%)		Grader 1	Grader 2	Grader 3
Citation format	Student 1	54	76	77
	Student 2	68	84	83

Creating a rubric

Discuss with your neighbour the brain essay rubric and process.

- Where does your grade differ?
- Argue for your viewpoint!
- Where would you make changes?

Piloting the Rubric

- Check with your colleagues
- Often, after seeing a few students' answers, you want to modify the rubric.

Grading Summary

1. Rubrics
    1. Save time in grading process overall.
    2. Sets clear criteria and standards
    3. Make grading process consistent and fair – essential in a team of Tas.
    4. Help students evaluate their own work.
    5. Save time in explaining grades to students.

(Walvoord & Johnson, 1998)

Academic Integrity

1. McGill Policy: **do not accuse the student.**

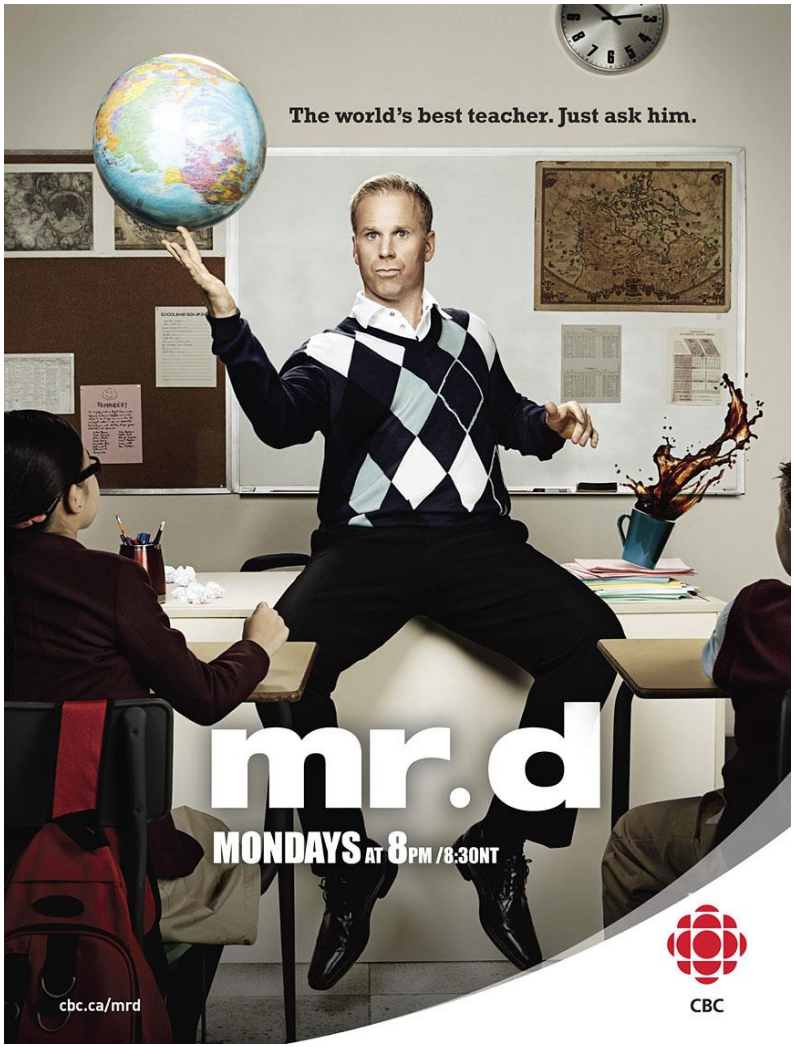
   "If you are a teaching assistant, you should report the incident to the course instructor, who should report it to [a] disciplinary officer."

2. Prevention is possible
   - Be vocal about how plagiarism hinders learning.
   - Establish dialogue with course supervisor.
   - Reduce their stress
3. Resources:
   - Dean of students:

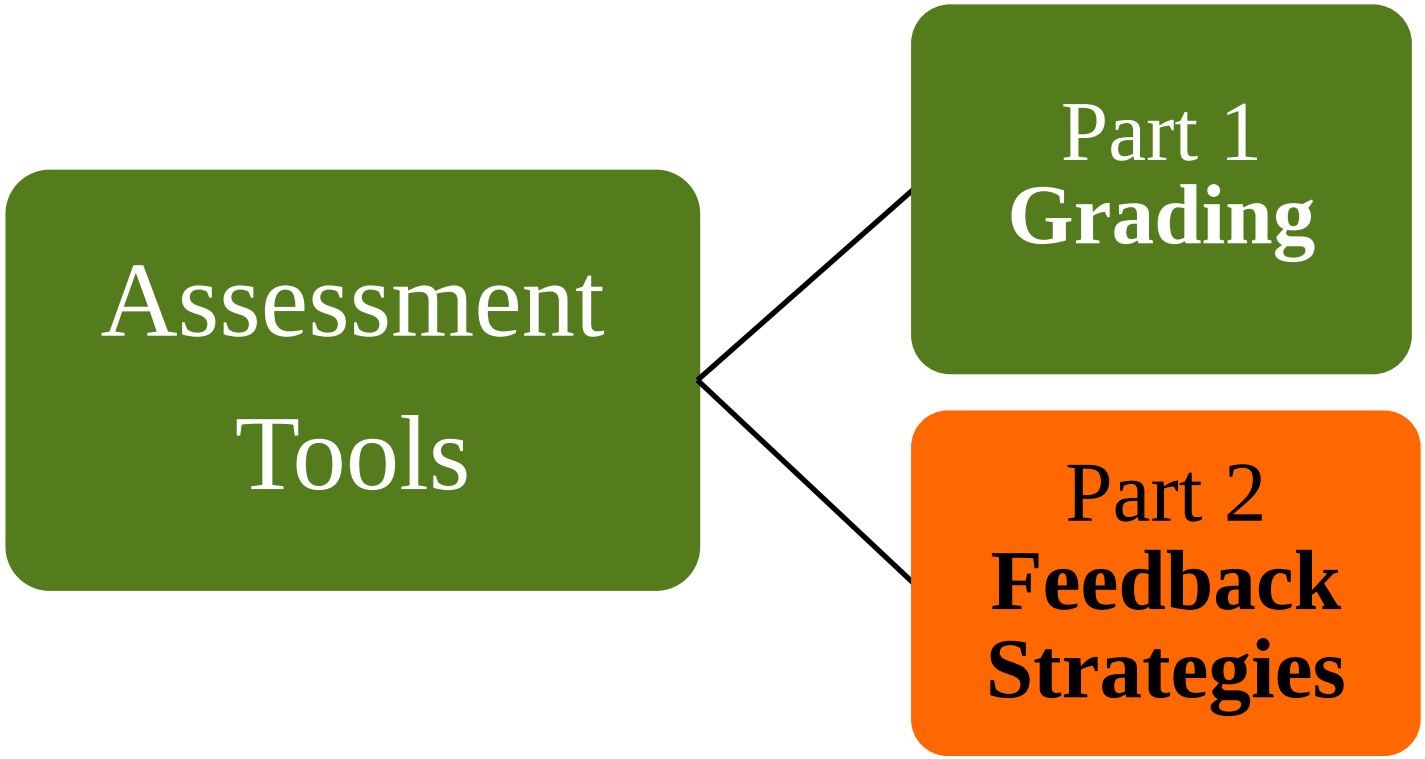
   http://www.mcgill.ca/students/srr/honest/staff/student

Grading and Feedback

A sample video of a teacher marking.



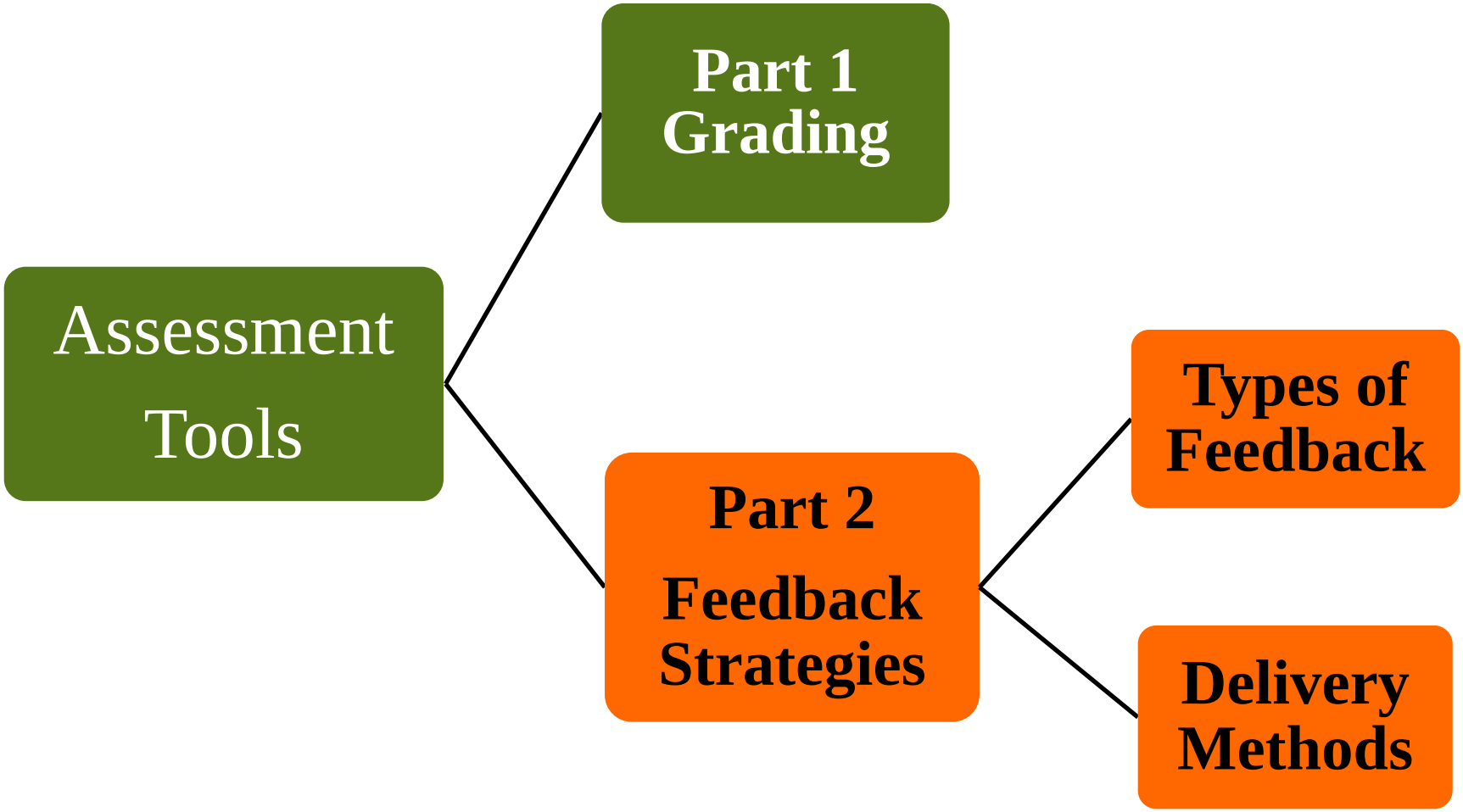
Overview


Assessment Tools
Part 1 **Grading**
Part 2 **Feedback Strategies**

What is feedback?

- Actual performance vs. established standard
- Helps students improve their work

Overview


Assessment Tools
Part 1 Grading
Part 2 Feedback Strategies
Types of Feedback
Delivery Methods

Good feedback is:

Specific

Measurable

Actionable

Relevant

Timely

Adapted from Shute (2008), Nicol & MacFarlane-Dick (2004), and Doran (1981)

Types of Feedback

Approach

- **Corrective:** tells students what they did wrong
- **Directive**: tells student how to fix problem
- **Facilitative**: guides student to their own solution

Scope

- **Global**: overall impression of performance
- **Local**: specific parts of work; evidence for global

Types of Feedback

Include both…

Positive:

- Avoid empty praise: be specific
- Help students see their progress

Negative:

- Show students where their process goes wrong
- Motivate students with concrete actions to improve

Task! Giving feedback

Take the graded brain essay, and provide 3-4 pieces of feedback for **either** student A or B (on the sheet)

Think **S.M.A.R.T.!**

Task! Giving feedback

Exchange sheets with your neighbour…

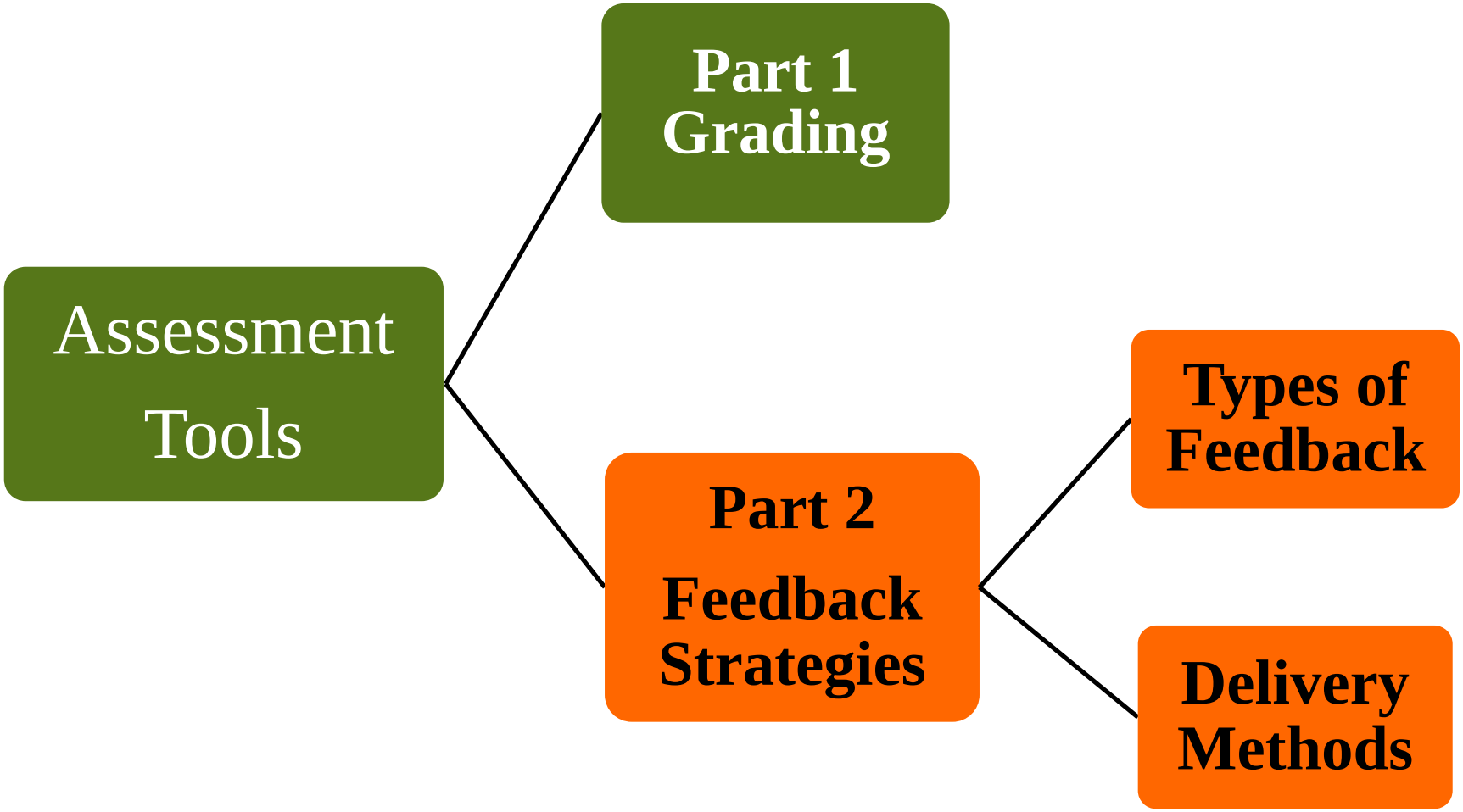
1. Read the feedback
2. Discuss:
   a. of feedback you think would be most and least useful to a student.
   b. Is any feedback missing
   c. What *types of feedback* did you find most helpful ?

Detailed Feedback is for "Teachable Moments"

Devote your time to…

- 2-3 most important skills only
- Situations in which students can take some *concrete action* to improve before final evaluation
- Situations in which you can increase motivation or confidence

Overview


Assessment Tools
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Small-group activity

1. Read the grading scenarios
2. Create a feedback strategy for each of them.
   a. What types of feedback will you use, and why?
   b. How will you deliver the feedback to the students?
   c. What will your feedback focus on?

Scenario 1: Lab Reports

- First-year (U0) Physics course
- First physics lab of the year
- Students measure gravitational constant.
  - Collect data, sample calculations, data plots, conceptual questions.
- Due at the end of a 3-hour lab session.
- Worth 5% of final course grade.
- You lead lab sessions (3 per semester)
- No office hours.
- 40 students, 2 TAs per lab section.

Scenario 2: Midterm Exams

- Midterm exam…
  - 1 creative problem solving question, some short recall questions, some application questions.
- Worth 25% of final course grade.
- You have office hours.
- Class average for the midterm is 63.
- 65 students, 2 TAs – you are grading 5 midterm questions out of 10.
- 300-level course, almost everyone from same or related department.

Scenario 3: Short Papers

- 2000-word (4-5 page) paper explaining an area of research related to the course.
- 24 students
- Worth 20% of final course grade
- 2nd of 3 such papers due in the course
- 200-level course with no prerequisites
- Course uses WebCT and you have office hours

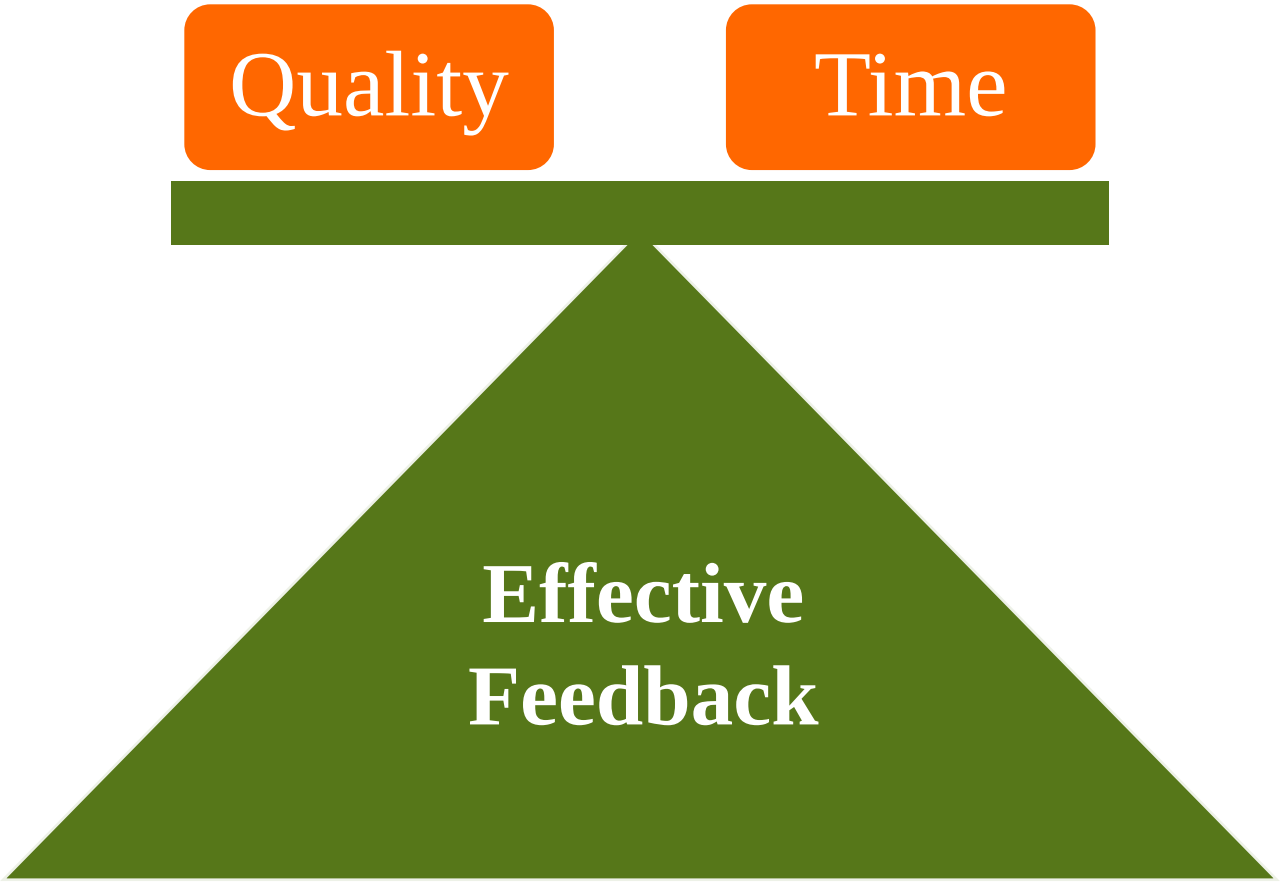
Selecting a Feedback Strategy

- How much is the task worth?
- How heavy is your grading load for the task?
- How skilled/advanced are the individual students? Is there a lot of diversity?
- What means of communication do you have at your disposal?
- Are the students going to perform similar or related tasks in the near future?

Delivery Methods

- Written directly on submission
- Filled grading rubric
- Print most common errors
- Post general comments online (myCourses)
- Review during lab or tutorial
- Ask instructor for five minute of next class
- Invitation to office hours
- Emails

Feedback Strategy



Instructor Self-Assessment

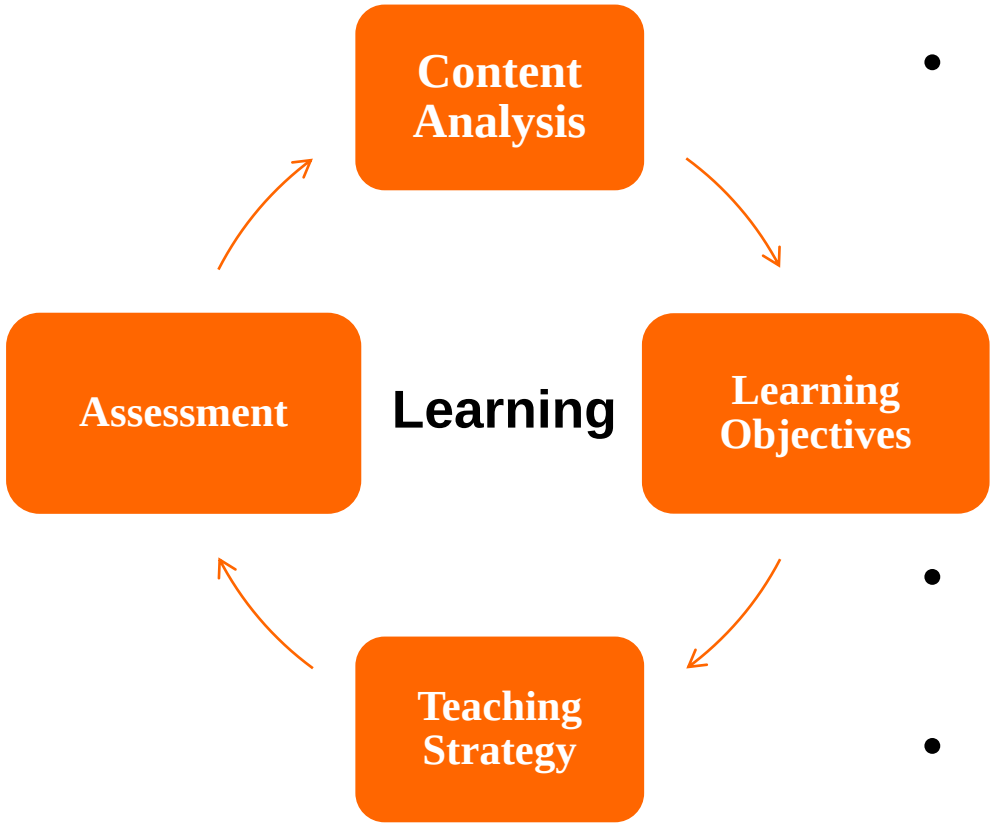
After grading, re-read your comments and check:

1. Do they show every student at least one thing done well and one area to improve on?
2. Would this feedback help *your* learning?
3. Are comments limited to 2-4 key skills?
4. Do comments include questions for the student?
5. Is writing legible, and vocabulary accessible?
6. Do comments relate to course learning objectives?

Grading and Feedback Summary

- Set clear criteria and standards for your grading.
- Grading rubrics are a good starting point for consistency across time and across many graders.
- You have many feedback options: before you start grading, plan a feedback strategy that best uses your time and effort.

Teaching as Part of a Team



- Instructors design course content and assessment...
  - TAs design conferences, review sessions, tutorials, model solutions, online discussions...
  - **Ensure that feedback and criteria are aligned with course goals**
- Most instructors are open to suggestions and new ideas.
- Collaborate with fellow TA's!

More questions? Many resources

Tomlinson Project in University-level Science Education

www.mcgill.ca/tpulse

Teaching and Learning Services

www.mcgill.ca/tls

Time to Practice!

Session Feedback

Take a minute to give *melanie* feedback on the Grading and Feedback in the Sciences workshop.

Think S.M.A.R.T.!