

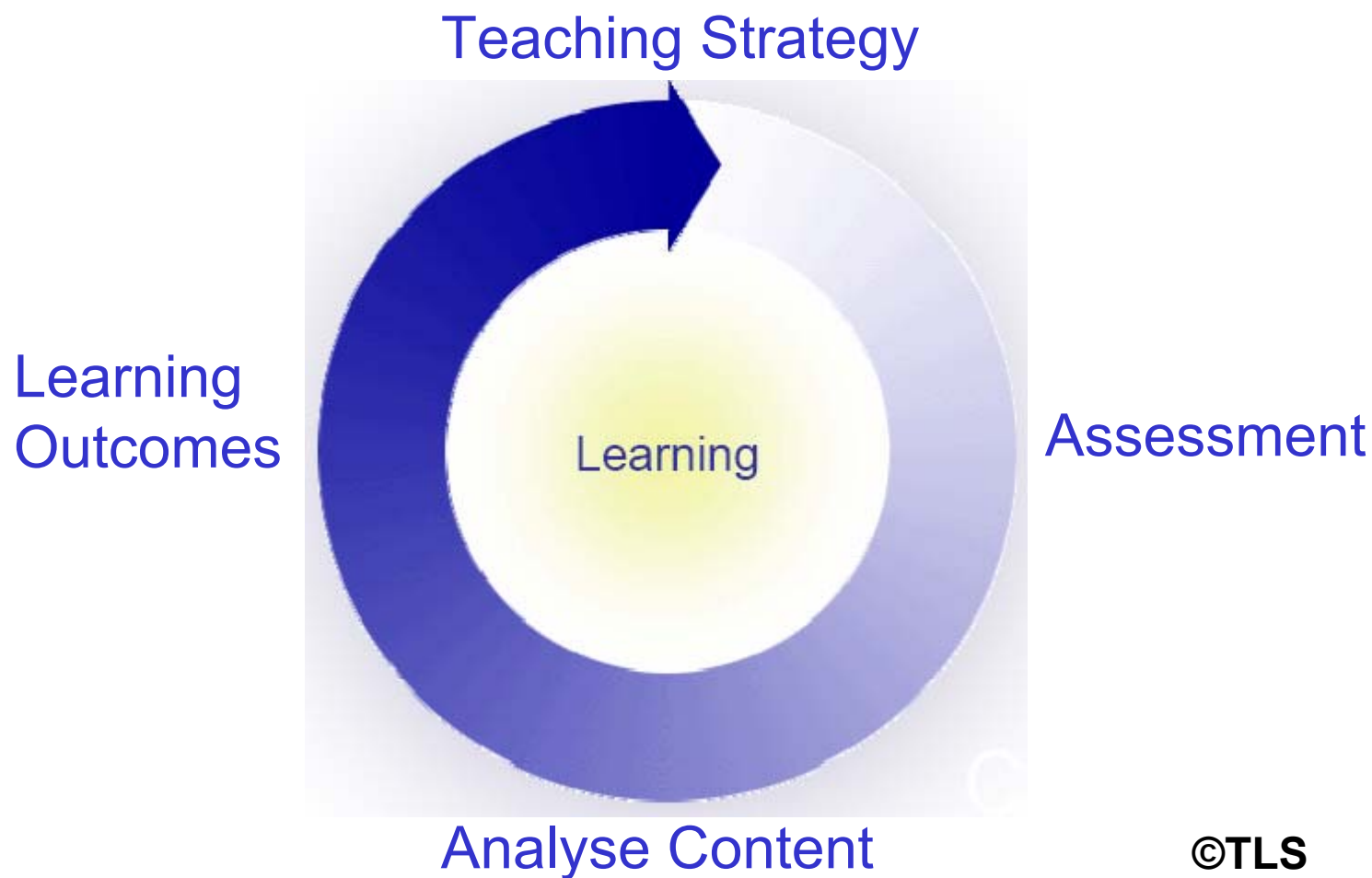
Grading in the Sciences



T-PULSE Graduate Teaching Workshops

- Faculty of Science
- first week of January, 2010

Instructional Design Process



Large Group Learning Activity

Importance of Grading and Feedback

- As an undergraduate student
 - What is important about grades?
 - What is important about feedback?
- From a TA perspective
 - What are your grading responsibilities and concerns?
 - What are your feedback responsibilities and concerns?

Debriefing

- Consistent (fairness)
- Efficient (time effectiveness)
- Quality of feedback to students

Individual Learning Activity:

Essay question

1. Grade essay question without guidelines (out of 12)
2. Grade essay question with guidelines (out of 12)
3. Debriefing

Developing a Grading Rubric

Step 1:

Identify **traits** that will count towards the grade.

Sample Grading Rubric

Trait:

Grammar and Spelling

Your students should be working towards *mutually understood* learning outcomes.

Developing a Grading Rubric

Step 2:

Construct a **scale** for scoring students' performance on each trait.

Sample Grading Rubric

Trait:

Grammar and Spelling

(2 pts)

Developing a Grading Rubric

Step 3:

Refine the scale and describe **levels of performance**

Sample Grading Rubric

Trait:	Grammar and Spelling	(2 pts)
Levels of Performance	Less than 2 errors	(2 pts)
	2-5 errors	(1 pts)
	> 5 errors	(0 pts)

Developing a Grading Rubric

Step 4:

Pilot the rubric across students and revise to reflect needs.

Lab Report

individually:

1. Review lab information and brainstorm possible traits

group:

1. Define traits
2. Construct a scale for each trait
3. Develop levels of performance
4. Pilot across students

Rubrics: Discussion Questions

1. Would you recommend *sharing* a grading rubric with students before an assignment is submitted? What are some benefits and challenges of this approach?

30 secs - individual brainstorm

2 mins - group discussion

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benefits:

- transparency in grading
- demonstrating interest in student success
- illustrate traits of a successful assignment

challenges:

- provide a 'recipe' for homework
- unrealistic
- problem solving skills, deter creativity

Rubrics: Discussion Questions

2. How would you choose the appropriate *level of detail* in a grading rubric? What are some of the issues in making this decision?

30 secs - individual brainstorm

2 mins - group discussion

Rubrics: Discussion Questions

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Rubrics: Discussion Questions

2. How would you choose the appropriate *level of detail* in a grading rubric? What are some of the issues in making this decision?
- certain criteria explained in more detail than others (e.g. language, organization)
 - allow room for creative interpretations, unusual answers
 - be consistent with the problem statement
 - analytical vs. holistic (novice to experts) levels of performance

Tips

● **Time & Effort** considerations

- Do all assignments need to be graded; would a check (plus/minus) system work?
- Save time by creating a common error key
- Grade all of the same question or paper section at one time to focus your attention
- Be aware of how much time you spend grading

● **Teaching & Learning** considerations

- Establish teaching moments like conferences or post-exam review to help students correct errors
- Articulate the *learning outcomes*

Cheating and Plagiarism

www.mcgill.ca/integrity

- 1) Be informed!
 - Expectations of the University
 - Rights of the student
- 2) Prevention!
 - Develop strategies to lower stress levels
- 3) Have a plan... just in case!

Instructional Design Process

