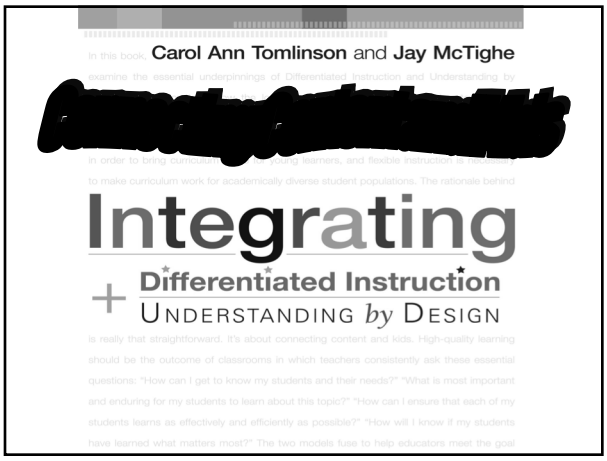


1

Session Topics

- ✓ Connections: UbD & DI
- ✓ UbD Stage 1 – Big Ideas & EQs
- ✓ Stage 2 – Designing & Differentiating Authentic Tasks
- ✓ Stage 3 – Differentiating Instruction
- ✓ Web-based Resources

12

Underlying Assumptions about UbD…

- ✓ Teaching and assessing for understanding enhances learning.
- ✓ Even good curricula can become more effective through "backward design" & design standards.
- ✓ Understandings are constructed in the mind of the learner.

22

Underlying Assumptions about Differentiation…

- ✓ A rich curriculum is the basis for effective differentiation.
- ✓ Students differ in their prior knowledge, learner profile, interests and talents.
- ✓ Differentiation strategies must be feasible in the classroom.

23

Understanding by Design

is not…

- a prescriptive program
- an instructional model
- content specific

(but requires in-depth content knowledge)

24

A Differentiation Continuum

Where is your classroom? …school?

How might we make our teaching more responsive without drowning in work?

25

Getting to Know Your Students:

Letter to Your Teacher

Ask students write a letter to you describing themselves as learners. Sample prompts:

- *How do you learn best?*
- *What are your strengths as a learner?*
- *What aspects of school do you find difficult?*
- *What are your interests and hobbies?*
- *What is your most vivid memory?*
- *What do you want me to know that will help me help you learn best?*

39

Getting to Know Your Students:

"Bio" on an Index Card

Ask students to answer ?s on an index card.

For example:

- *What are your interests and favorite hobbies?*
- *What is your most vivid memory?*
- *What do you want me to know that will help me help you learn best?*

40

Getting to Know Your Students:

Life Map

1. ***Create a timeline of key events in your life to date.***

   _____x_____x_____x_____x_____x_____

2. ***Plot a "future map" -- where you plan/hope to be in 5 – 10 years.***

   _____o_____o_____o_____

41

Getting to Know Your Students:

Letter from Parent

Ask parents write a letter to you describing their child? Sample prompts:

- *What are your child's interests and hobbies?*
- *In what areas of school does your child excel? .... find most difficult?*
- *How does your child learn best (e.g., listening, observing, doing, etc.)?*
- *What do you want me to know that will help me help your child learn best?*

45

Getting to Know Your Students:

Letter to Next Year's Teacher(s)

Your principal has asked all students to write a letter to next year's teacher to help the teacher prepare for the new class. Write a letter telling your new teacher about yourself as a *learner*. Be sure to tell what you find easy to learn, what is most difficult to learn, and *how* you learn best.

46

Getting to Know Your Students:

Peer Nomination Form

Have students complete a Peer Nomination form. Sample prompts:

- *Who would you ask to help you if you get stuck in class work or homework?*
- *With whom would you prefer to work in a group?*
- *Who are the most serious students in this class? ... the most creative?*
- *Who could best take charge of the class if the teacher had to leave?*

47

Getting to Know Your Students:

Paired Interviews

Have students interview a partner and introduce them to the class. Sample prompts:

- *What do you like to do outside of school?*
- *What is your favorite subject?*
- *How do you learn best?*
- *Tell me something that most people do not know about you.*

48

Getting to Know Your Students:

Student Survey

I learn best by/when _____

_____

So when you teach me, please

_____

_____

49

Getting to Know Your Students:

Student Survey

I learn best by talking with other people.

So when you teach me, please

Let us work in groups and don't make us always keep quiet!

50

Getting to Know Your Students:

Student Survey

I learn best when I know *why* we are learning something and how I can use it.

So when you teach me, please explain the reason for learning things (not just that you'll need this next year).

51

Getting to Know Your Students:

Learning Metaphors

I learn like a _____

because _____

So when you teach me, please

_____

_____

52

Getting to Know Your Students:

Learning Metaphors

I learn like a sponge ***because*** once my mind fills up I can't hold any more

So when you teach me, please don't give too much information at once, and give me some time to digest it.

53

3 Stages of Backward Design

1. Identify desired results.
2. Determine acceptable evidence.
3. Plan learning experiences & instruction.

56

"Backward" Design Logic

Think like an assessor, not an activity designer!

57

3 Stages of Backward Design

Identify desired results.

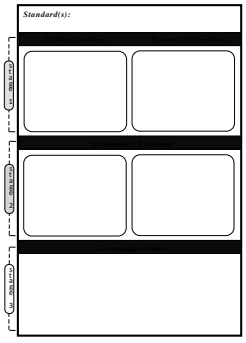
Plan learning experiences & instruction.

Determine acceptable evidence.

58

The UbD Template…

- ✓ embodies the three stages of backward design
- ✓ provides a common format for creating and sharing curricular designs



59

Three-Minute Pause

Meet in groups of 3 - 5 to...

√ summarize key points.
√ add your own thoughts.
√ pose clarifying questions.

64

3 Stages of Backward Design

1. Identify desired results.
2. Determine acceptable evidence.
3. Plan learning experiences & instruction.

71

research on
Learning and Cognition

"Learning with understanding is more likely to promote transfer than simply memorizing information from a text or a lecture."

– Bransford, et. Al., How People Learn, p 224

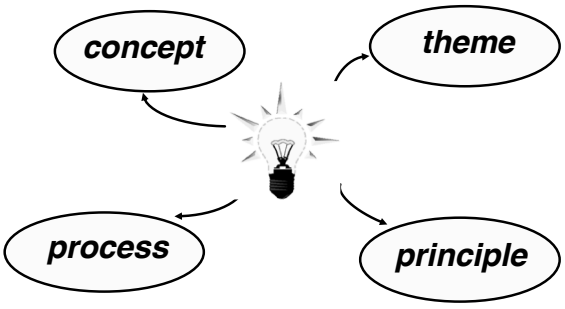
79

A BIG IDEA…

- **is an abstraction (e.g., a concept, theme, principle)**
- **is a transferrable idea**
- **"connects the dots"**

81

Transferrable "big ideas"



82

Concepts - transferable 'big ideas'

examples...

- adaptation
- change
- energy
- exploration
- freedom
- interaction
- justice
- migration
- patterns
- power
- symbol
- systems

83

A Study Of/In _____

The rainforest = A study of a complex ecosystem

World War I = A study of unintended consequences

84

A Study Of/In _____

Decimals, Fractions, Percents = A study of equivalence

Weight training = A study of proper technique

85

A Study Of/In _____

Frog and Toad are Friends = A study in relationships

The Catcher in the Rye = A study of author's style

86

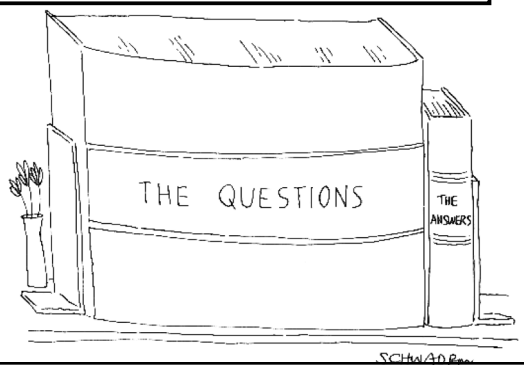
A Study Of/In _____

Insects = A study in structure and function

Native Americans = A study of identity and survival

87

If the textbook contains the answers, then what were the questions?



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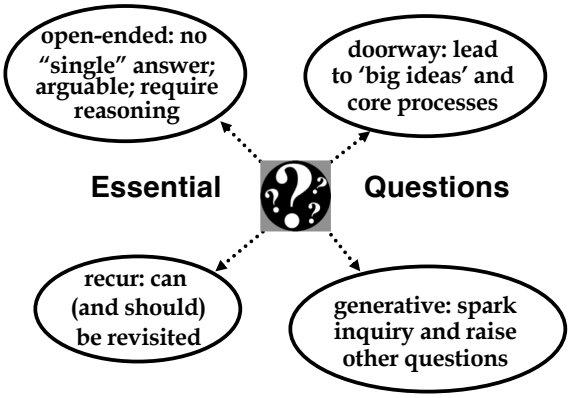


100

adaptation

'Big Idea' Understanding:
Living organisms adapt to enable them to survive in harsh or changing environments.

Essential Question:
In what ways do living organisms adapt to survive in harsh environments?

104

world literature

'Big Idea' Understanding:
Great literature from various cultures explores enduring themes and reveals recurrent aspects of the human condition.

Essential Question:
How can stories from other places and times be about me?

105

predictive statistics

'Big Idea' Understanding:
Statistical analysis and display often reveal patterns in data, enabling us to make predictions with degrees of confidence.

Essential Question:
Can you predict the future? What will happen next? How sure are you?

106

artistic expression

'Big Idea' Understanding:
Available tools and technologies influence the ways in which artists express their ideas.

Essential Question:
Where do artists get their ideas? What factors influence artistic expression?

107

friendship

'Big Idea' Understanding:
True friendship is revealed during hard times, not happy times.

Essential Question:
Who is a 'true friend' and how will you know?

108

verbal & non-verbal communication

'Big Idea' Understanding:
• Humans process both verbal and non-verbal messages simultaneously.
• Your communication becomes more effective when verbal and non-verbal messages are aligned.

Essential Question:
What makes a great speaker great? How do great speakers use non-verbals?

109

Essential Questions

When and how should we differentiate within the UbD framework?

129

"Color Key" to differentiation in backward design

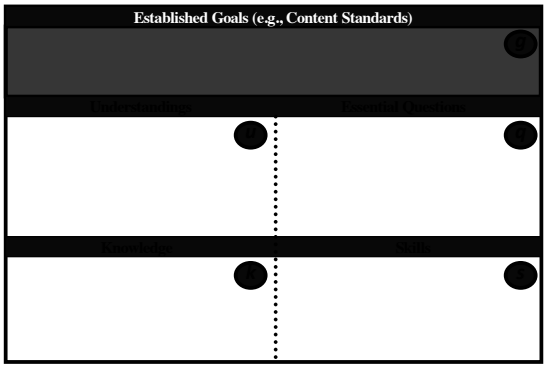
Should be Differentiated

May need some Differentiation

Should rarely be Differentiated

130

Differentiation in UbD - Stage 1



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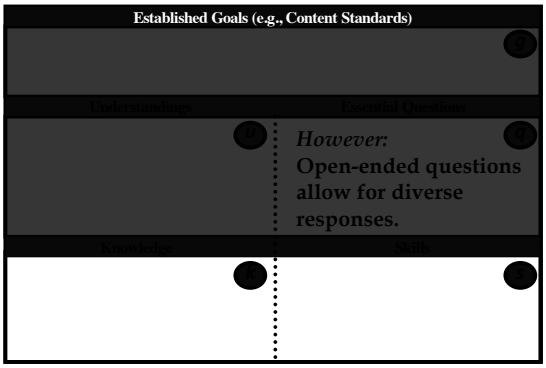
Differentiation in UbD - Stage 1



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Sample Essential Questions:

- *What is a number?*
- *Can everything be measured? ...quantified?*
- *What are the limits of mathematical modeling?*

133

Sample Essential Questions:

- *How do we know what really happened in the past?*
- *Whose "story" is it?*
- *Is history inevitably biased?*

134

Sample Essential Questions:

- *How do effective writers hook and hold their readers?*
- *What makes a book "great"?*
- *How do good readers figure out the author's meaning when they don't know all the words?*

135

Sample Essential Questions:

- *What is "wellness?"*
- *How do you hit with greater power without losing control?*
- *How can feedback help you improve?*

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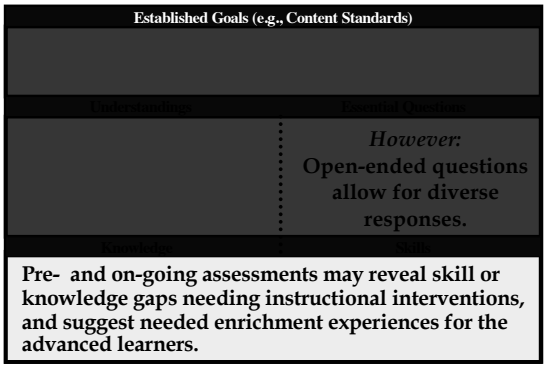
Differentiation in UbD - Stage 1



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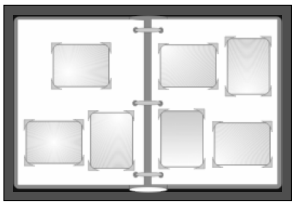
3 Stages of Backward Design

1. Identify desired results.
2. Determine acceptable evidence.
3. Plan learning experiences & instruction.

139

Think "Photo Album" versus "Snapshot"

Sound assessment requires multiple sources of evidence, collected over time.



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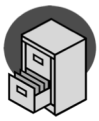
Gather evidence from a Range of Assessments



- ✓ authentic tasks and projects
- ✓ academic exam questions, prompts, and problems
- ✓ quizzes and test items
- ✓ informal checks for understanding
- ✓ student self-assessments

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Match the Assessment Evidence with the Learning Goals

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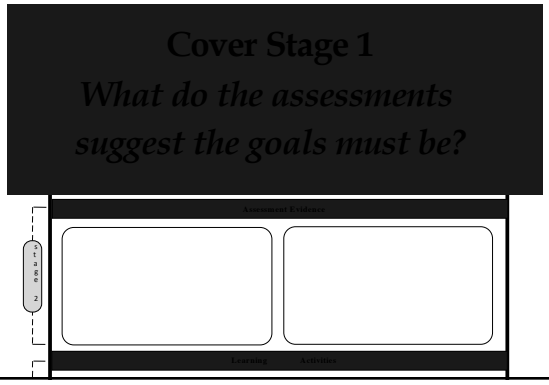
The UBD Planning Template



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Stage 2 – UbD Template

Performance Task(s)	Other Evidence
You Are What You Eat: Create a picture book to teach 1st graders about "healthful" eating. **Camp Menu:** Design a 3-day menu for meals and snacks for a weekend camping trip. Explain why your menu plan is both healthy and tasty.	• Quiz on the food groups and their nutritional benefits. • Skill check: interpreting nutrition information on food labels. • Test on health problems caused by poor eating.

150

Stage 1 – UbD Template

Students will use a knowledge of nutrition to plan appropriate diets for themselves and others.

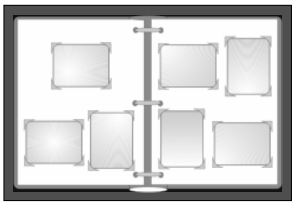
Standard 6-c

Understandings	Essential Questions
• A balanced diet contributes to mental and physical health. • Poor nutrition leads to various health problems.	• *What is healthful, balanced eating?* • *What are consequences of poor eating?*
Knowledge	**Skill**
• nutrition vocabulary • food groups • nutrition-related health problems	• interpret nutrition info. on food labels • analyze & evaluate diets • plan a balanced diet

151

Think "Photo Album" versus "Snapshot"

Sound assessment requires multiple sources of evidence, collected over time.



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Essential Questions

How might we responsibly differentiate student assessments?

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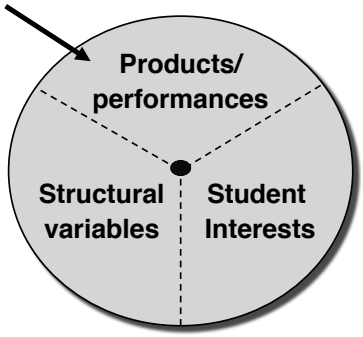
Differentiating Tasks



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Stage 2 – Design Template

Performance Task(s)
Since our class has been learning about nutrition, you have been asked to create an illustrated brochure to teach about the importance of good nutrition for healthful living. Your brochure should explain a balanced diet and show the difference between healthy and unhealthy eating. Show at least two health problems that can occur as a result of poor eating.

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Differentiation in UbD - Stage 2

Performance Task - GRASPS

- *Goal*
- *Role*
- *Audience*
- *Scenario*
- *Product/ Performance*
- *Standards (criteria)*

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Differentiation in UbD - Stage 2

Performance Task - GRASPS

- *Goal - explain "healthy" eating*
- *Role - student teaching primary kids*
- *Audience - grades K - 2*
- *Scenario - "teach a lesson"*
- *Product/ - picture book*
  Performance - oral explanation

217

Differentiation in UbD - Stage 2

Performance Task - GRASPS

- *Goal - explain "healthy" eating*
- *Role - student informing peers*
- *Audience - grades 5 - 8*
- *Scenario - "teach a lesson"*
- *Product/ - illustrated brochure*
  Performance - written + oral explanation

219

Differentiation in UbD - Stage 2

Performance Task - GRASPS

- *Goal - explain "healthy" eating*
- *Role - expert informing teens/adults*
- *Audience - teens and adults*
- *Scenario - informative brochure*
- *Product/ - written brochure w/*
  Performance - written explanation

220

Stage 2 – Design Template

Performance Tasks	Other Evidence
You Are What You Eat: Create a brochure on "healthful" eating. Camp Menu: Design a 3-day menu for meals and snacks. Explain why your menu plan is both healthy and tasty.	• Quiz on the USDA Food Pyramid guidelines • Quiz on reading food labels • Test on health problems caused by poor eating.

Evaluative Criteria/ Scoring Rubric(s)

- effectively illustrates a balanced diet
- clearly shows differences between healthy & unhealthy diets
- accurately explains two nutritionally-related health problems
- well crafted products and polished performances

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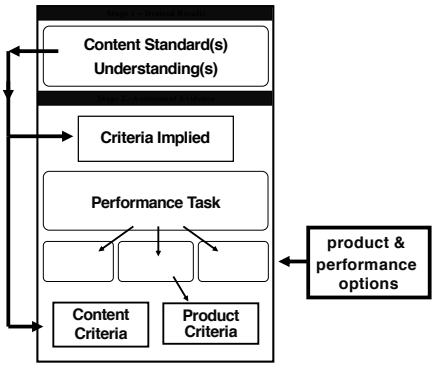
Differentiation Within Assessment



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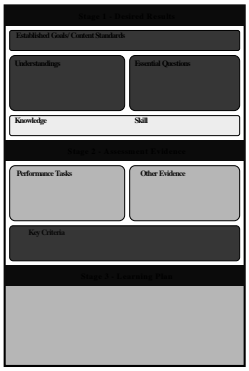
Differentiation in UbD



Synthesizing Activity:

Summarize the key ideas of this session as represented by the color-Coded UbD "backward design" Template.

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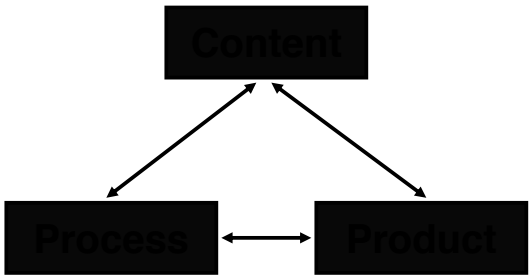
Differentiating for Diverse Learners



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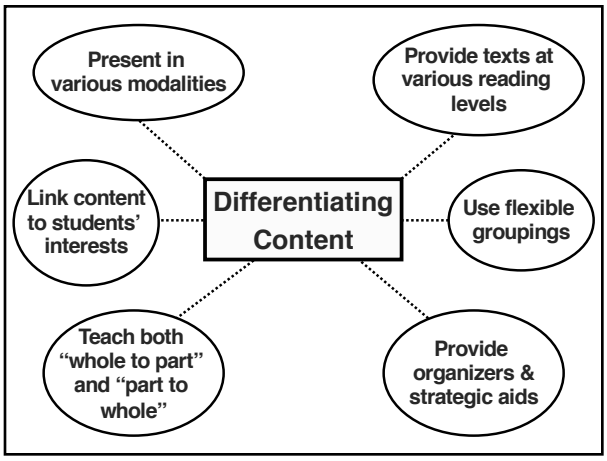

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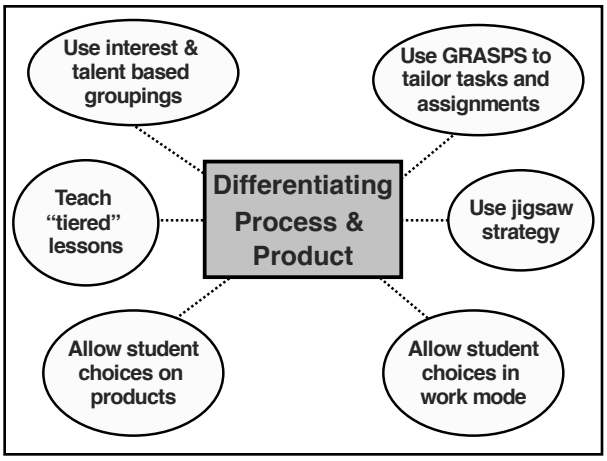

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Part 2

Cite specific examples of
How specific strategies apply to your content and level.
Be prepared to discuss your selections and reasons with members of your group.

262

research on
Learning and Cognition

"The contemporary view of learning is that people construct new knowledge and understanding based on what they already know and believe."

-continued

306

research on
Learning and Cognition

"A logical extension of this view is that teachers need to pay attention to the incomplete understandings, the false beliefs, and the naïve renditions of concepts that learners bring with them."

– Bransford, et. Al., How People Learn, p 10

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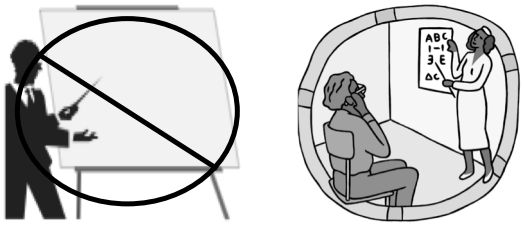
No teaching *before* pre-assessment



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Diagnostic Pre-Assessments…

- ✓ precede instruction
- ✓ assess students' prior knowledge
- ✓ check for misconceptions
- ✓ reveal interests and/or learning styles
- ✓ provide information to assist teacher planning and guide differentiation

Examples: **pre-test, survey, skills check, K-W-L**

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Diagnostic Pre-Assessments…

1. K-W-L
2. Pre-test (non graded)
   - fact/concept test
   - "transfer" test
3. Skills Check
4. Web/Concept Map
5. Misconception Check

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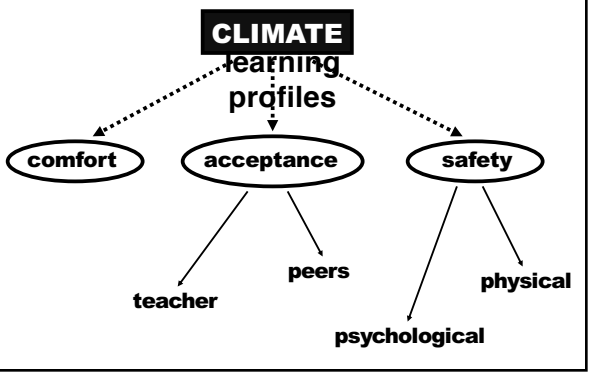
Factors Influencing Learning



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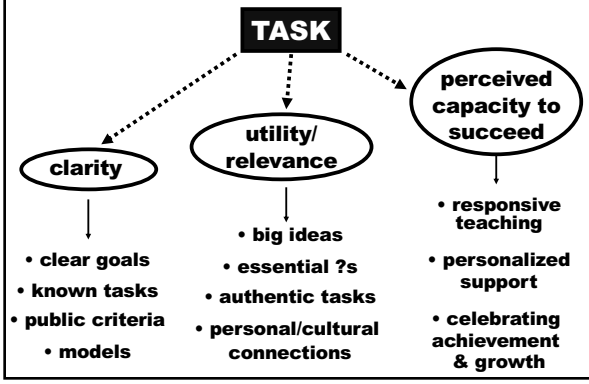
Factors Influencing Learning



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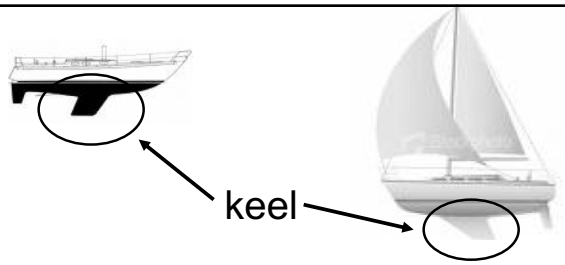

How does UbD function like the keel of a sailboat?

349

How does UbD function like the keel of a sailboat?

- ✓ ***It provides stability when sailing.***
- ✓ ***It buffers the effects of strong winds and currents.***
- ✓ ***It helps you stay on course.***

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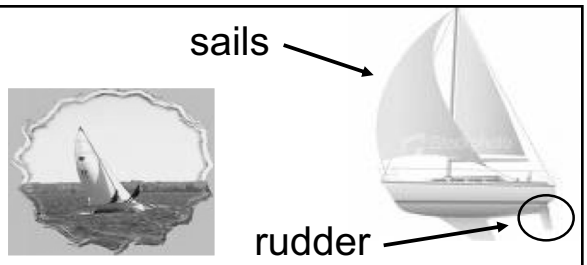
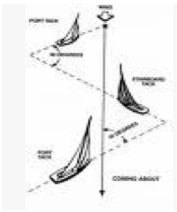


How does Differentiated Instruction function like the rudder and sails?

351

How does Differentiated Instruction function like the rudder and sails?



- ✓ ***It allows us to be responsive to unpredictable conditions (i.e., kids and context).***
- ✓ ***It guides needed adjustments as we make our way.***

352

Ideas for Action

- ***Think big.***
- ***Start small.***
- ***Go for an "early win."***

361