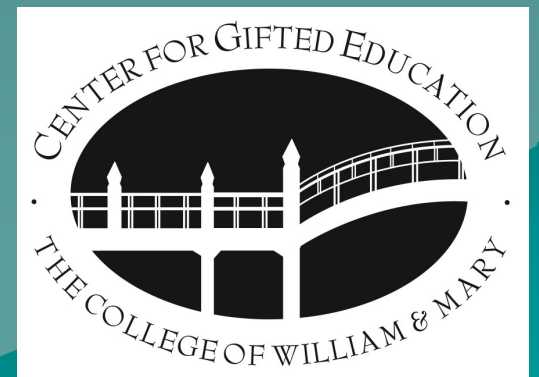


Differentiating Curriculum for High Ability Learners

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Purpose of the workshop

- ◆ Participants will be able to:
 - apply principles of differentiation to key problems in responding to gifted student needs,
 - remodel activities to make them more differentiated, and
 - reflect on other applications of differentiation.

Critical Characteristics of the Gifted Learner On Which Differentiation Is Based

- ◆ **Precocious**
- ◆ **Complex**
- ◆ **Intense power of concentration**
- ◆ **Creative**
- ◆ **Abstract conceptualizer**
- ◆ **Others: interest in study of people et al.**

Learner Characteristics and Corresponding Emphases in the Curriculum

THE LEARNER

THE CURRICULUM

Precocity



Advanced Content

Intensity



Process/product depth considerations

Complexity



Issues/concepts/themes/
ideas across domains of
learning

What is Differentiation?

The process of differentiation is the deliberate adaptation and modification of the curriculum, instructional processes, and assessments to respond to the needs of gifted learners.

Gifted Learner Needs

What is taught

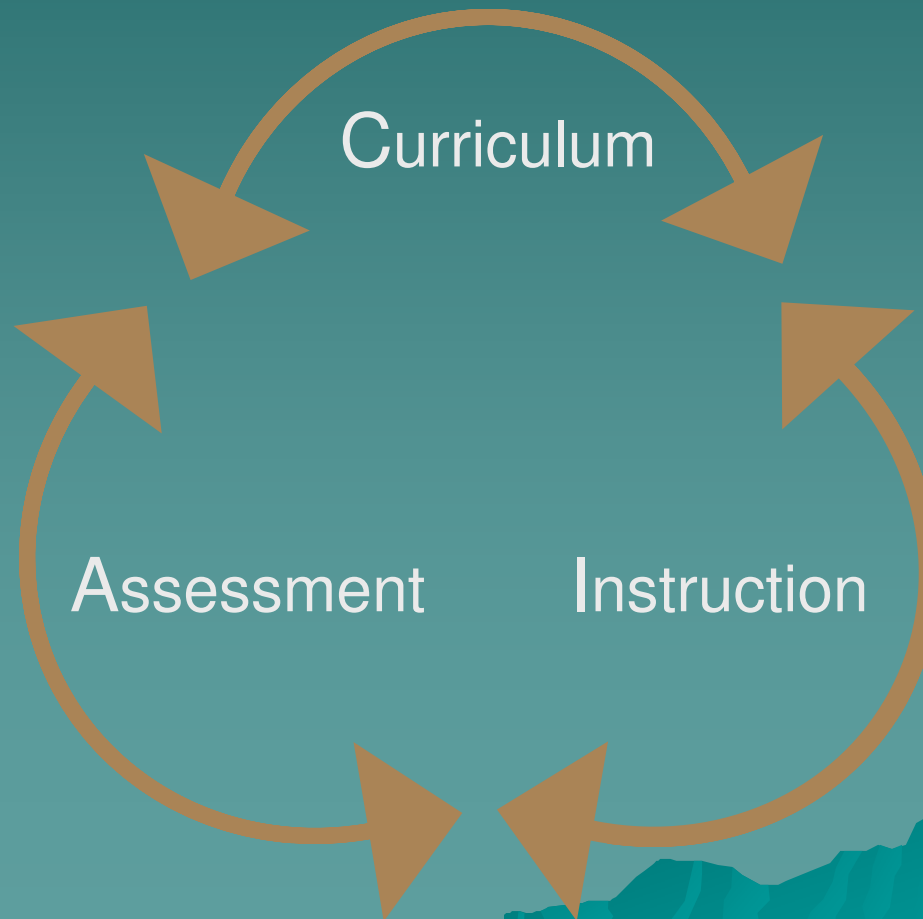
Curriculum

What is learned

Assessment

Instruction

How it is delivered



Differentiation Among Gifted Learners: Implications for Curriculum Differentiation

Abel (Age 14)

- ◆ Is enrolled in Year 1 of a foreign language; regular summer program participant; engages in drama; placed in spelling bees at regional level.
- ◆ Exercises strong opinions about literature and writing; demonstrates adult reading comprehension and mastery of literary elements in oral and written forms; exhibits highly capable use of language in all basic forms of writing (i.e., narrative, informational, expository, persuasive).

What does Abel need?

Adrienne (Age 14)

- ◆ Is bilingual and enrolled in Year 4 of a second foreign language; has traveled to the relevant country and visited authors' homes and work-sites; has won multiple writing awards; has a five year history of theater credits.
- ◆ Designs and implements a literary study on a period, author or subject/theme of 6,000-7,000 words that is published by a literary journal.

What does Adrienne need?

What is Differentiated Curriculum for the Gifted?

Features:

- ◆ Acceleration
- ◆ Complexity
- ◆ Depth
- ◆ Challenge
- ◆ Creativity
- ◆ Abstraction

Differentiation Feature: Acceleration

- ◆ Fewer tasks assigned to master standard
- ◆ Assessed earlier or prior to teaching
- ◆ Clustered by higher order thinking skills

Example of differentiated task

- ◆ Pretest student knowledge and skills of statistics.
- ◆ Group students by results of the pretest in groups of 4. Provide streamlined instruction for the top group.
- ◆ Provide task demands for the top group, using a problemsolving approach.

- ◆ Task demand: Use statistics (ie.mean, median, mode, frequencies and percentages) to analyze one of the following data sets, prepare graphs to illustrate your understanding of the data, and present findings in a presentation to the school at a science symposium.

- ◆ Health care expenses for people in each decade of life from 10 to 90 years of the for the years 2006-2008,

OR

- ◆ Auto sales in Brunei by car type across 10 years compared to world sales for those same car makes,

OR

- ◆ 10 year trends in salary increases for different sectors of the Brunei economy.

Follow-up questions to consider:

- ◆ What would you predict would be the trend for your data over the next 5 years?
- ◆ How would you estimate it?
- ◆ What factors would influence it?

Problem

Using acceleration strategies, how could we differentiate a spelling program or a vocabulary development program for the gifted?

Differentiation Feature: Complexity

- ◆ Used multiple higher level skills
- ◆ Added more variables to study
- ◆ Required multiple resources

Example of differentiated task

- ◆ Analyze the social, political, and economic issues that influenced three ancient civilizations: Egyptian, Greek, and Roman. Synthesize their influence on each culture and evaluate how each issue contributed to the decline of each culture. Use at least 3 sources (one primary) to substantiate your claims in a 6-page research paper.

Problem

How can we make the following activity more complex?

Read one text on World War II and answer the following questions: Who was involved? What were the causes and results? .

Differentiation Feature: Depth

- ◆ Studied a concept in multiple applications
- ◆ Conducted original research
- ◆ Developed a product

Example of differentiated task

- ◆ How could the concept of systems help us understand the following 3 applied scientific topics: swine flu, animal extinction, and weather patterns? Diagram the elements, interactions, boundaries, inputs and outputs affecting each of the three and compare.

- ◆ Choose one of these topics and research key questions of interest. Develop a brochure to share with the general public on your findings.

Problem

How can we deepen student understanding of the concept of change as it applies to scientific topics?

Differentiation Feature: Challenge

- ◆ Advanced resources employed
- ◆ Sophisticated content stimuli used
- ◆ Cross-disciplinary applications made
- ◆ Reasoning made explicit

Example of differentiated task

- ◆ Read selected works by 3 Nobel prize winners in literature and research how the theme of man's inhumanity to man is used How can this theme be applied to art of the period, to world political upheavals, and to social injustice in the writer's country of origin? What evidence exists to show how the author was influenced by these cultural connections?

Problem

How can we challenge students in their understanding of “language” ?

Differentiation Feature: Creativity

- ◆ Designed/constructed a model based on principles or criteria
- ◆ Provided alternatives for tasks, products, and assessments
- ◆ Emphasized oral and written communication to a real-world audience

Example of differentiation

- ◆ Design an art product (your choice of a vase, a painting, or a collage of found objects) to demonstrate your understanding of the elements of color, balance, perspective, and theme. Write an artist's statement about your art object that synthesizes its features and situates it in an artistic tradition. Exhibit your work at a local museum.

Problem

- ◆ What would be design specifications for students creating an ideal playground?
- ◆ How might choice be employed?
- ◆ Who could be their real audience?

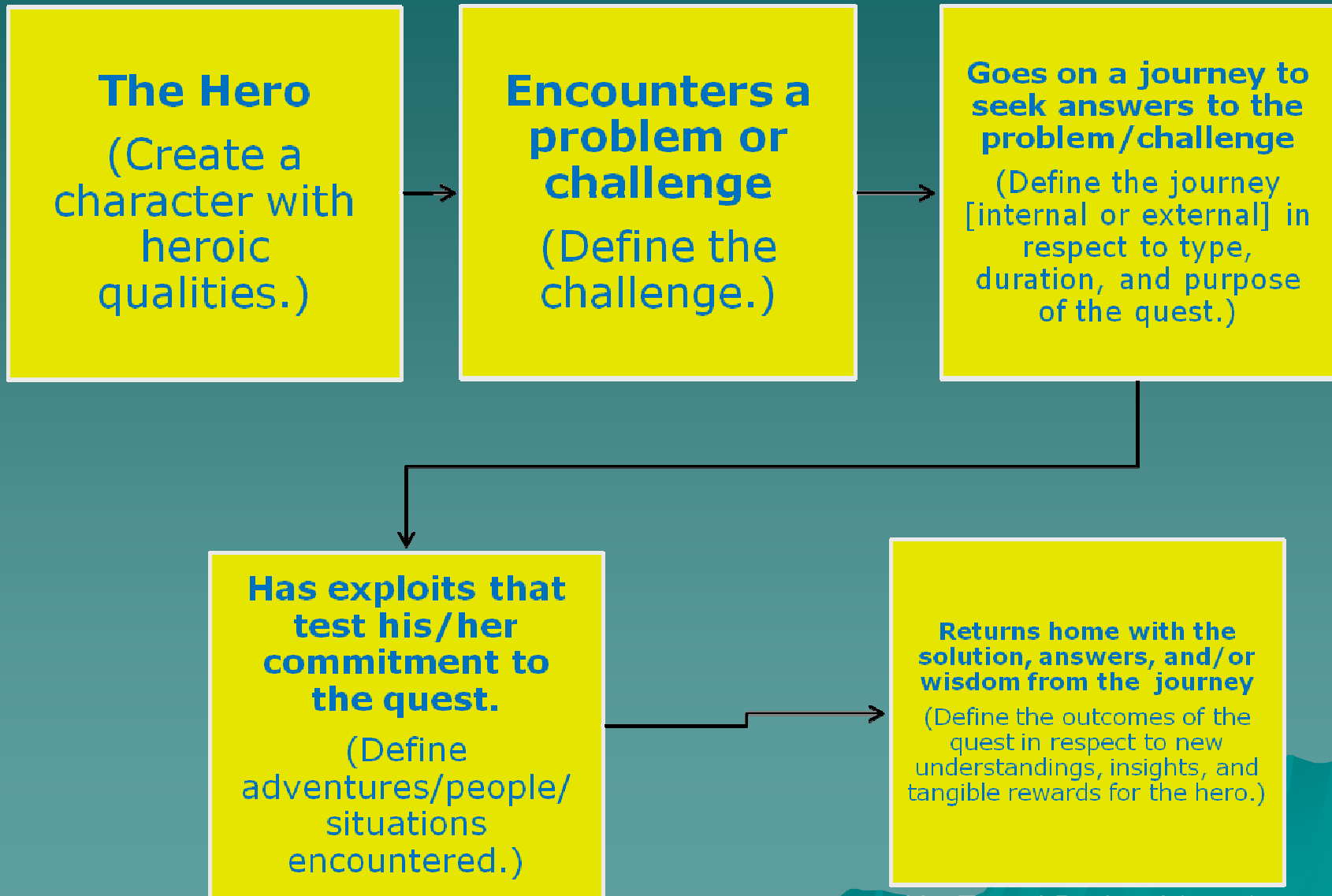
Now design a differentiated approach, based on the following scenario...

- ◆ What ideas do you have for Mr. Atwell?

The Value of Teaching/Learning Models

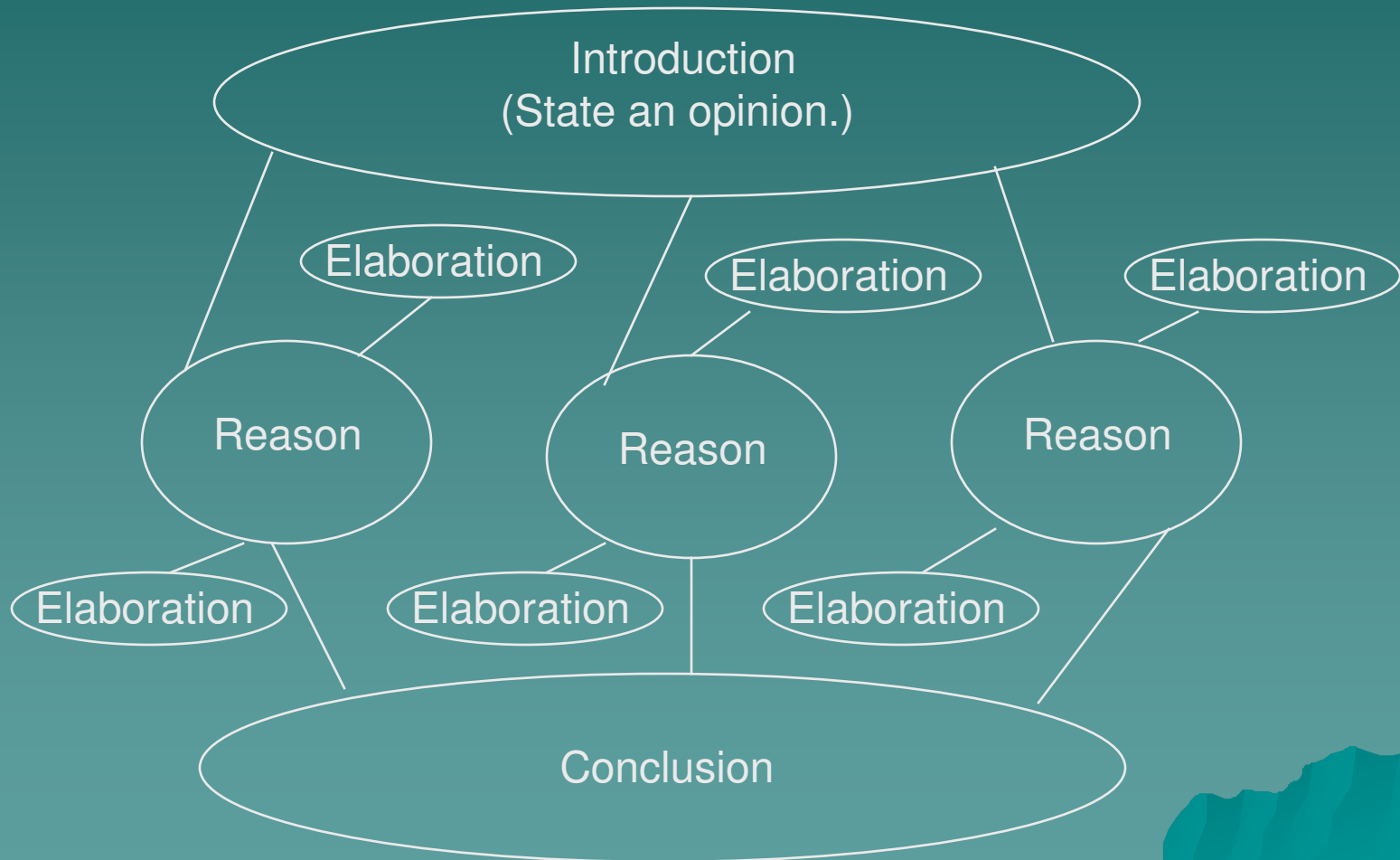
- ◆ Provide specifications for creative work
- ◆ Elevate the level of the work
- ◆ Provide purpose and direction for projects

Quest Model for Creative Writing



VanTassel-Baska, J (2007)

Hamburger Model for Persuasive Writing



Remodel the following project to make it more differentiated for the gifted:

Author Study Contract

Select a book to read by a given date and provide me with the name of the book.

Choose two among the following activities to do:

1. Create a mindmap of a character in respect to personality, appearance, preferences etc.
2. Choose a passage from your book and explain its meaning in your own words.\
3. I will draw a comic strip or story map, outlining the plot.
4. I will design a poster on the computer to advertise my book.
5. I will write a dialogue that I will role play.

What inquiry approach might be used to enhance the Author Study Contract?

- ◆ Question-asking (prepare question clusters)
- ◆ Problem-based learning (create an ill-structured problem)
- ◆ A research model (provide the scaffold to conduct research)
- ◆ Higher order skills (Use Bloom as a scaffold to organize the contract)

Example Remodeled Activity

- ◆ Students may choose one of the following authors and read at least three books or stories by the chosen author: Twain, Melville, Hawthorne.
- ◆ Analyze each reading using a literature web that explores theme, images and symbols, and structure.
- ◆ Using the quest model, emulate the style of your author in a 10 page story.

Rubric dimensions

- ◆ Level of understanding of the author's use of theme, images and symbols, and structure
- ◆ Transference of author's style to one's own writing
- ◆ Creative interpretation of the quest model
- ◆ Use of effective vocabulary and language

What Differentiation is NOT

- ◆ Choice alone
- ◆ Project work for its own sake
- ◆ Independent student contracts that are ill-conceived

What Makes Differentiation Work?

- ◆ Diagnostic assessment of functional level of skills and resultant modification of curriculum
- ◆ Grouping gifted learners using a research-based approach
- ◆ Using research-based materials
- ◆ Assessing advanced learning

Using Cluster Grouping

- ◆ Keep groups small (2-5)
- ◆ Target instruction in areas of advanced learning capacity.
- ◆ Provide direct and facilitated instruction.
- ◆ Provide at least 2 hours per day of grouped instruction.

Questions for discussion

- ◆ What problems and issues arose as you were working on the differentiation activities?
- ◆ How can you resolve them?

Reflections on differentiation--

How does learning for students change because of the modifications you have made?

How has your thinking changed about curriculum as a result of differentiation strategy use?