



PERMATApintar  
National Gifted Centre  
The National University of Malaysia

# **DIFFERENTIATED TEACHING FOR THE GIFTED AND TALENTED**

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# What Is Differentiated Instruction at Pusat PERMATApintar Negara?

- Differentiation means **tailoring instruction to meet individual needs**.
- Teachers can differentiate content, process, products, or the learning environment.

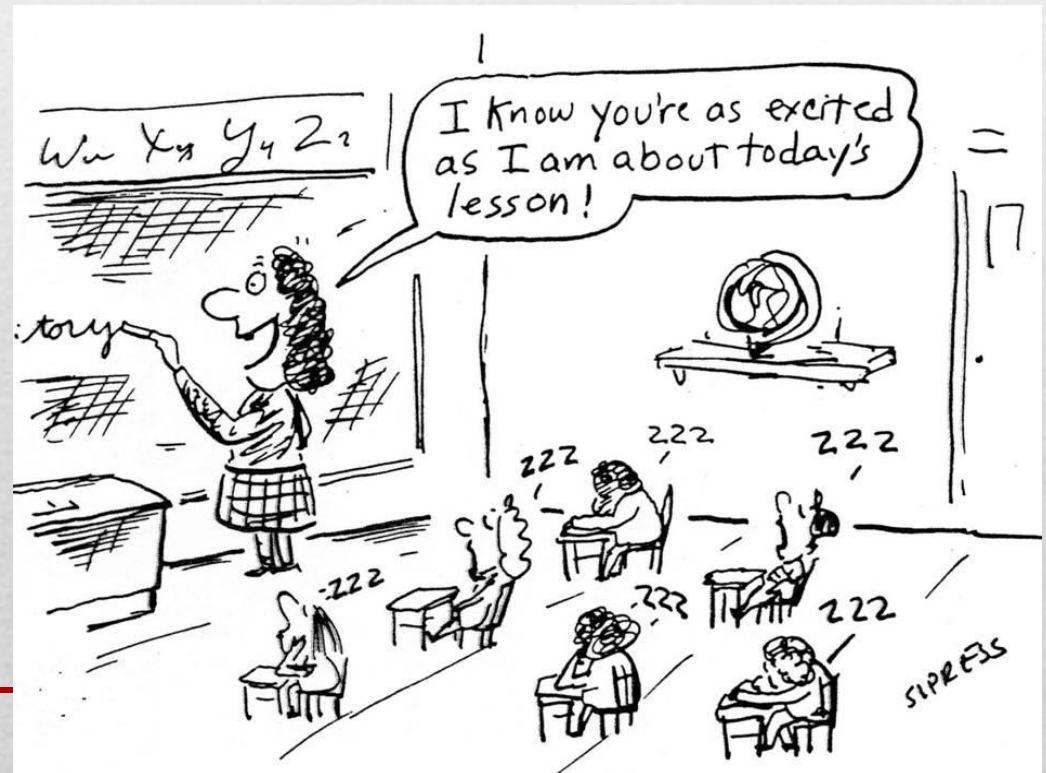


- Content – what the student needs to learn;
  - Process – activities in which the student engages in order to master the content;
  - Products – learning outcomes that he or she has learned in a unit; and
  - Learning environment – the way the classroom works and feels
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- Using reading materials at varying readability levels;
- Using different projects at varying difficulties
- Using reading buddies;

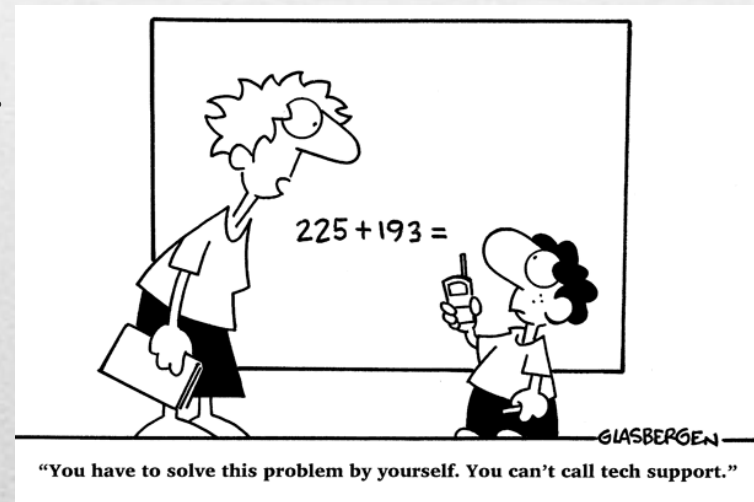
- Meeting with small groups to re-teach
- Re-teach and enrich



## Differentiating Content

# Differentiating Process

- Using tiered activities through individual or group work
- Providing interest centres (one teacher – one subject – one classroom)
- Developing personal folio
- Varying the length of time a student may take to complete a task



- Giving students options of how to express required learning (e.g., create a puppet show, write a letter, or develop a mural with labels);
- Allowing students to work alone or in small groups on their products; and
- Encouraging students to create their own product assignments as long as the assignments contain required elements.

## **Differentiating Products**

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# Differentiating the Learning Environment

- Making sure there are places in the room to work quietly and to collaboration;
- Providing materials that reflect a variety of cultures;
- Setting out clear guidelines for independent work
- Developing routines that allow students to get help when teachers are busy and cannot help them immediately;
- Helping students understand that some learners need to move around to learn, while others do better sitting quietly



- Teachers co-teach (One instructor – One teaching assistant – one class)
- Team teach
- Peer teaching through re-teach

## **Differentiating Learning Environment**

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# INTEGRATED CURRICULUM MODEL (ICM)



*"I expect you all to be independent, innovative, critical thinkers who will do exactly as I say!"*



ICM considers three dimensions:

- Advance content
- High-level process and product work
- The use of concept across subject areas).

# **ICM Instructional Strategies**

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## **To Introduce Advance Content Teachers Must;**

- Establish students' needs – the diagnostic-perspective approach can be used for this first step.
  - Establishing students' goals and objectives,
  - Build the pre-assessment based on the goals and objectives.
  - Reorganize the curriculum
  - Group students together based on the pre-assessment
  - Maintain record of students work, document student growth and their readiness as well ability.
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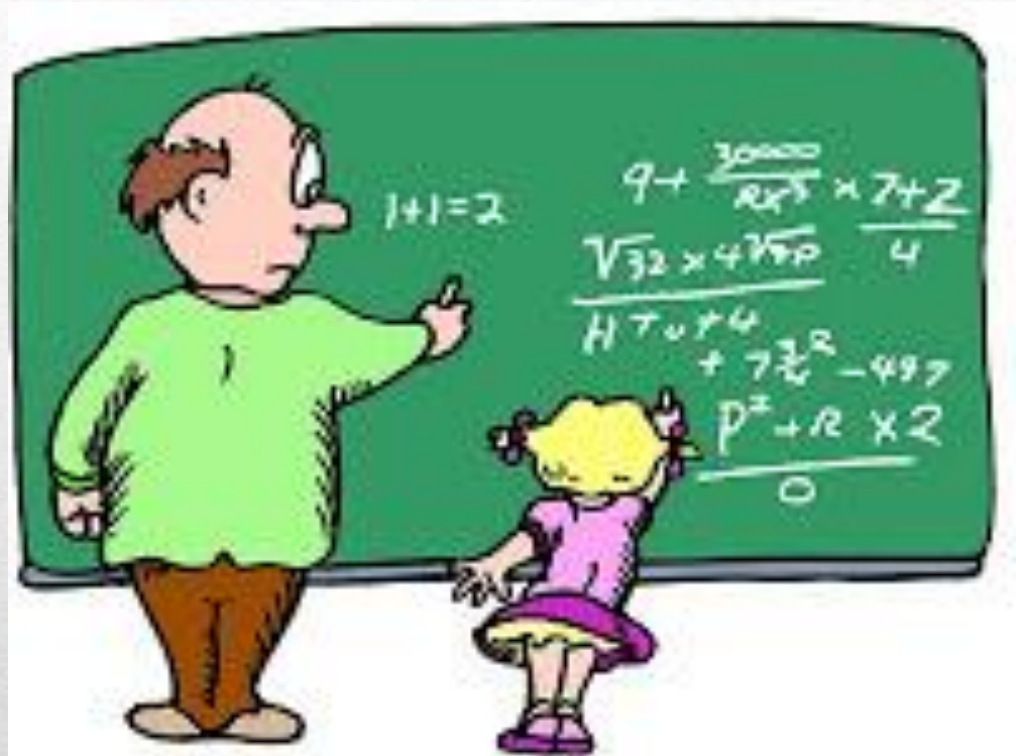
# Enhancing the students thinking skills through process and product

- Engaging students in higher order process through;
    - Inquiry-based learning
    - Problem-Based Learning (PBL) and problem-solving
    - Paul's Element of Reasoning –It allows students to gather, conceptualize, apply, synthesize and evaluate. The elements needed for reasoning are;
      - Purpose and goal
      - Question at issue (Problem to be solved)
      - Points of view (Frame of reference)
      - Experience, data and evidence
      - Concepts or ideas
      - Assumptions
      - Inferences
      - Implication and conclusion
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# Concept Dimension

- Concept learning allows students and teachers to have the “flow” of learning where they will be deeply engaged in the teaching material used and developed high level of curiosity and inquiry.
  - Develop the concept across all subject areas
  - Connect concept to life.
  - It is important that teachers across subject areas work together to use a particular concept across teaching over a period of time.
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- Acceleration
- Compacting
- Enrichment



# Differentiated Strategies

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# **ACCELERATION OPTIONS**

- Early admission to school (regardless to elementary, middle and high schools)
  - Grade skipping
  - Entering college/university early with or without a high school diploma
  - Entering a college/university early-entrance program
  - Content acceleration
  - Taking special fast-paced classes during school holidays or academic year
  - Credit by examination
  - Advance Placement courses (AP) and examinations
  - Individual tutoring in advance subject matter
  - Mentorships
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# **CURRICULUM COMPACTING**

- Step 1: Select relevant learning objectives in a subject area
  - Step 2: Pretest students to determine mastery levels
  - Step 3: Grouping
  - Step 4: Streamline instructional time for students who show mastery of the objectives.
  - Step 5: Provide small group or individualized instruction
  - Step 6: Assign post-tests
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- Khan Academy
- PERMATApintar School Holiday Program
- Open-Lab Experiment

- Mentoring on Research
- JHU-CTY Summer Programs
- Jati diri Program
- British Counsel Program

# **ENRICHMENT PROGRAMS**

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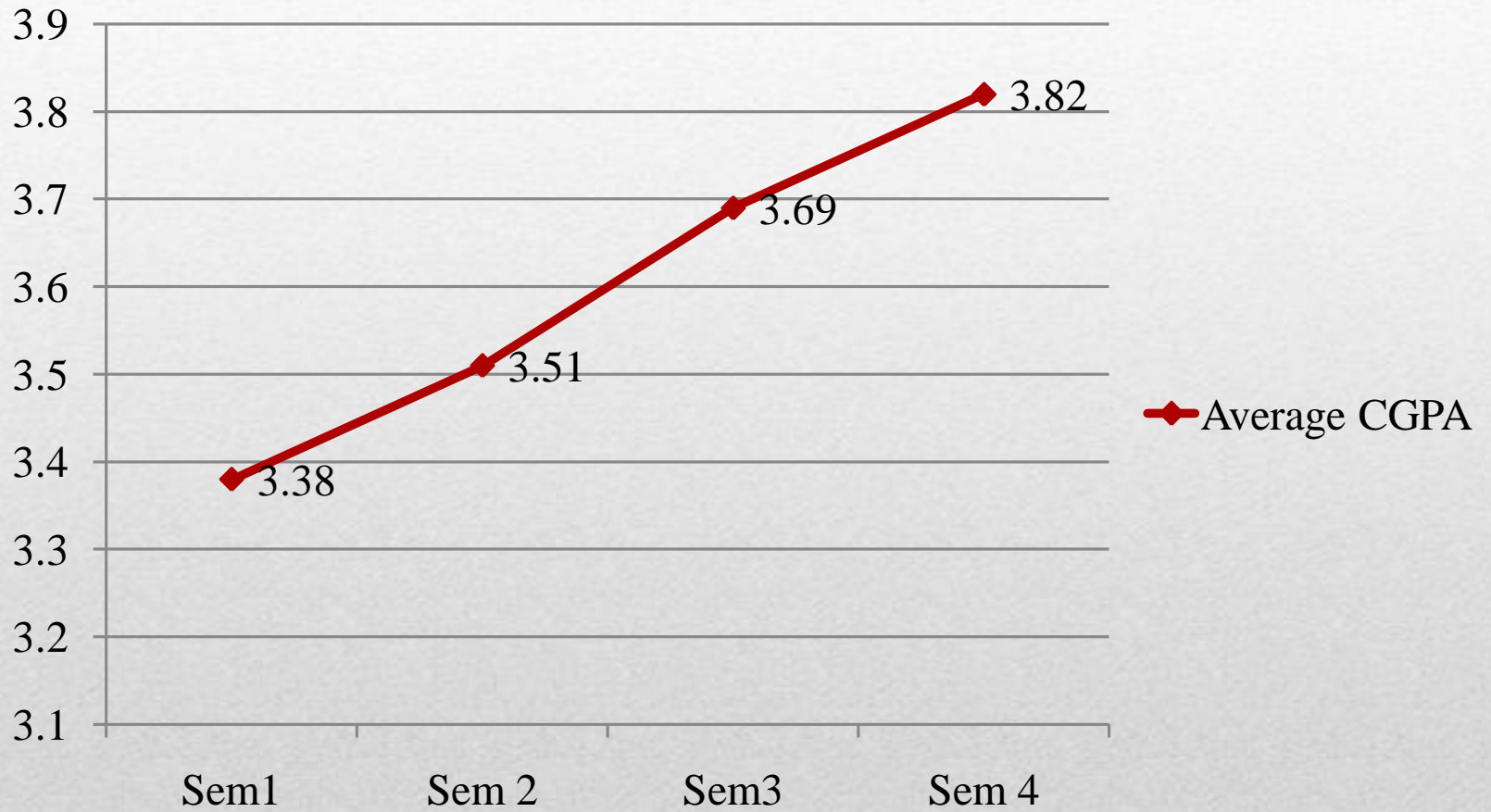


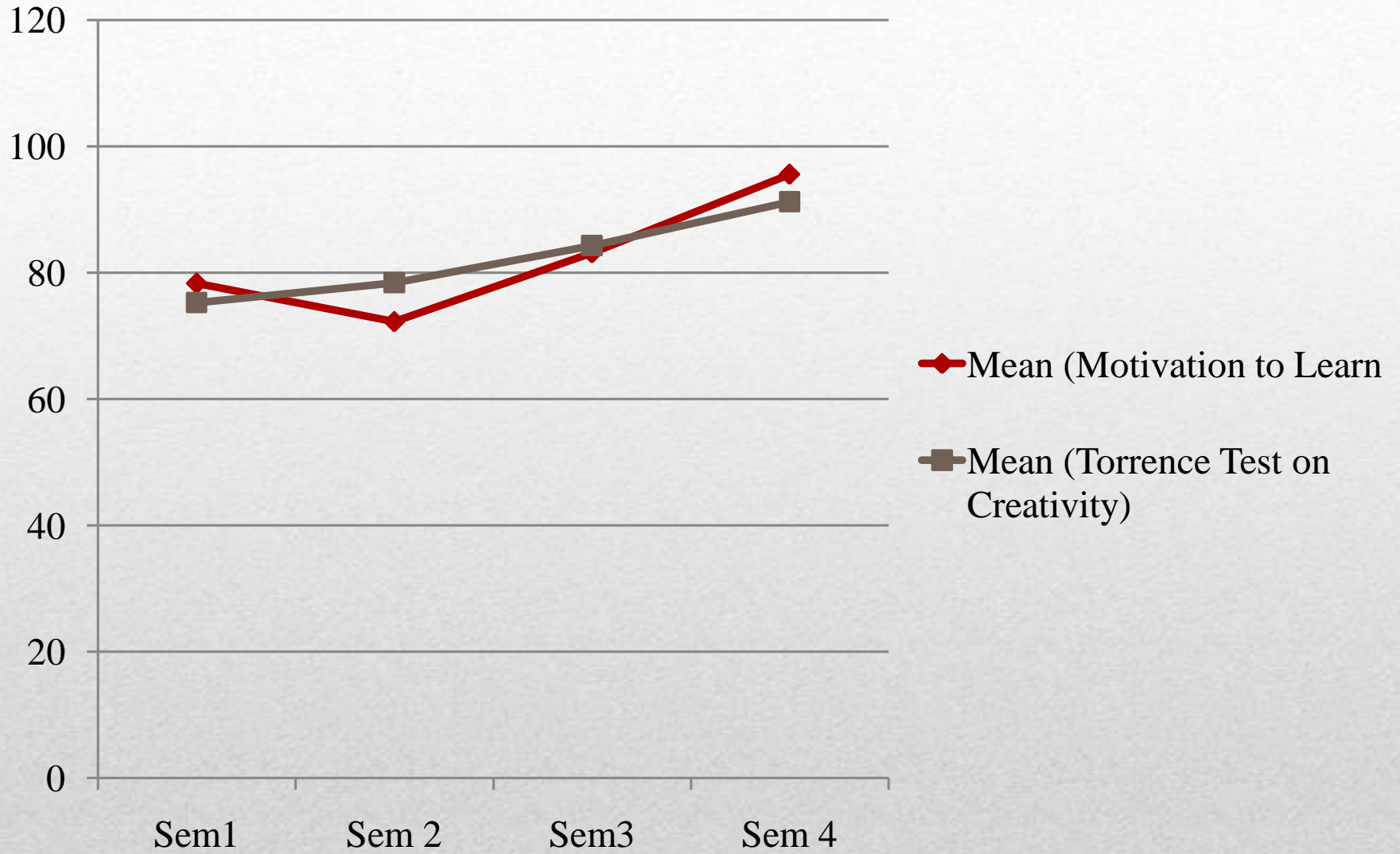


## OUR FINDINGS

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## Average CGPA









Wisconsin Uni  
IOWA Uni

Brown Uni  
Johns Hopkins  
Rutgers Uni

UCLA  
UC Davies



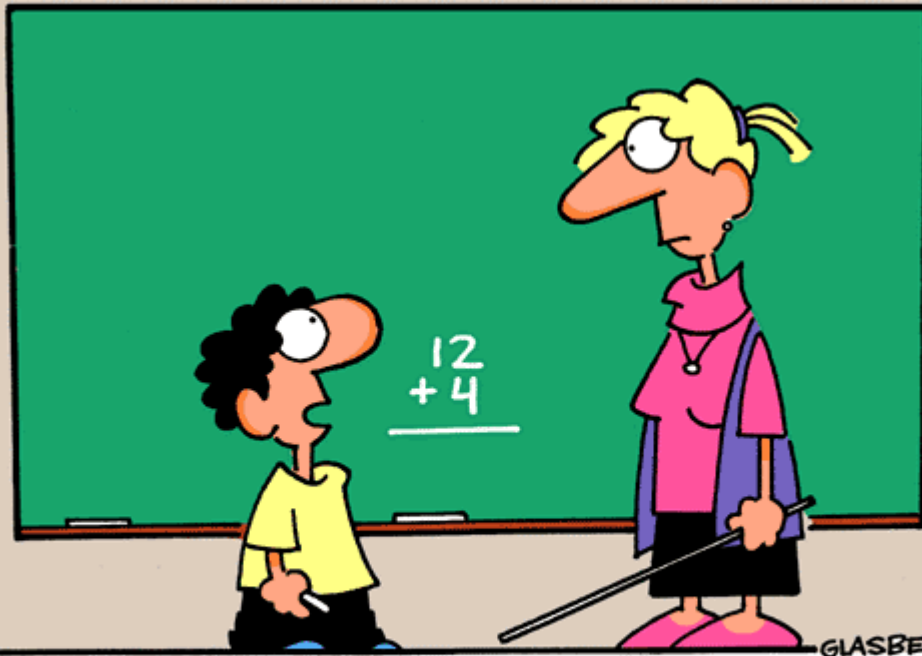
**15 OF OUR STUDENTS HAVE BEEN ADMITTED TO AMERICAN UNIVERSITIES EVEN BEFORE COMPLETING SPM**



- Differentiation is most effective when done through: content, process and product and suitable learning environment.
- Introducing concept across subject areas increase students' understanding on the concept
- Pre-testing help guide teachers build curriculum suitable for each students
- Post-test indicates mastery
- Suitable learning environment can mean in-doors or out-doors learning
- Independent learning increase students motivation
- Students' creativity increase when teaching involves high level content, effective process, high outcome and effective learning environment
- **Differentiated teaching can improve G & T students' academic performance**

# Conclusion

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**“Do I get partial credit for simply having the courage to get out of bed and face the world again today?”**

# THANK YOU