

# Understanding by Design: *A Course planning approach*

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By:

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# CHECK- if this training matches your needs

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- My students:
  - A) Perform poorly on tasks that require in-depth understanding and transfer ability
  - B) Seem to have no sense of what really matters in my course
  - C) Have problems solving their own problems, asking questions, and thinking critically
  - D) Do not like it when I ask them to dig deeper instead of waiting for me to spoon-feed them

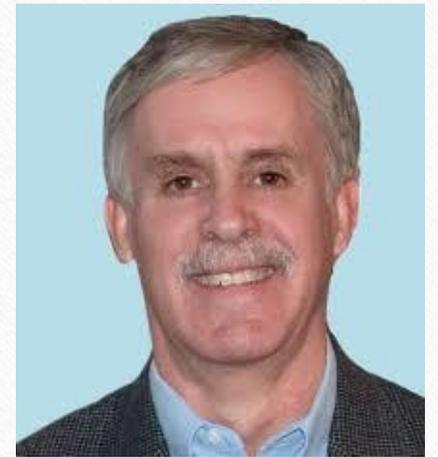
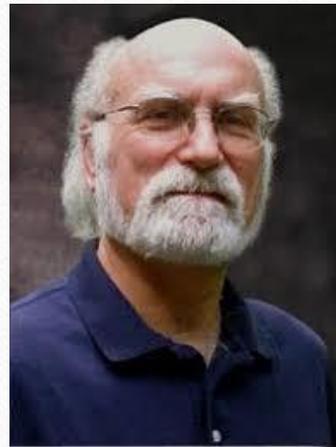
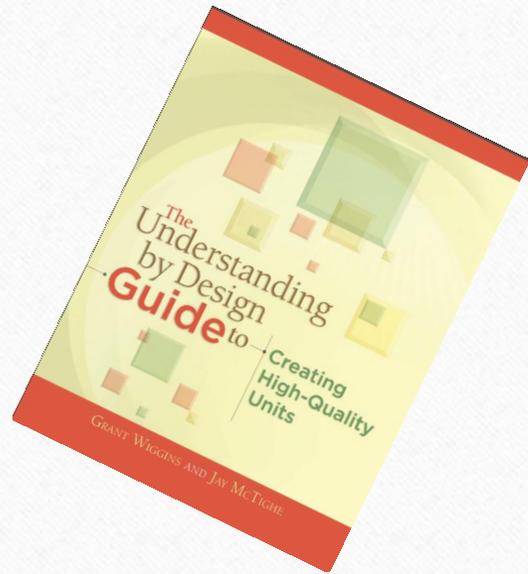
# CHECK...

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- We, instructors,
  - A) Tend to cover contents and activities more superficially than we should
  - B) May have activities and field/lab works in our courses; but, they often are fragmented and lack clear overarching goals that are clear to learners
  - C) Ask students to do too many drills and works, and not enough “playing the games”
  - D) Our exams focus mostly on recall, recognition, or plugging in of previous learning

# *The Understanding by Design Guide to Creating High-quality Units (2005)*

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Grant Wiggins & Jay McTighe

# Workshop Agenda

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- What is “Understanding”?
- What is UbD?
- The Eight basic tenets of UbD
- The Basics of UbD: Backward Design
- Developing an Initial Sketch of a Unit
- Using the UbD Template for unit planning

# Activity

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- What is understanding? What is the difference when students *understand* a content, really *get it*, and when they simply *know* it?

Think-pair-share:

1. Write down your definition(s)
2. Compare it with someone sitting close to you and come up with synthesized definition
3. We will see a few of them as a large group

# Understanding ...

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- Is multifaceted
- Is different from mere “knowing,”
- Its goal involves more sophisticated instruction and assessment than teaching and testing for knowledge and skill alone.

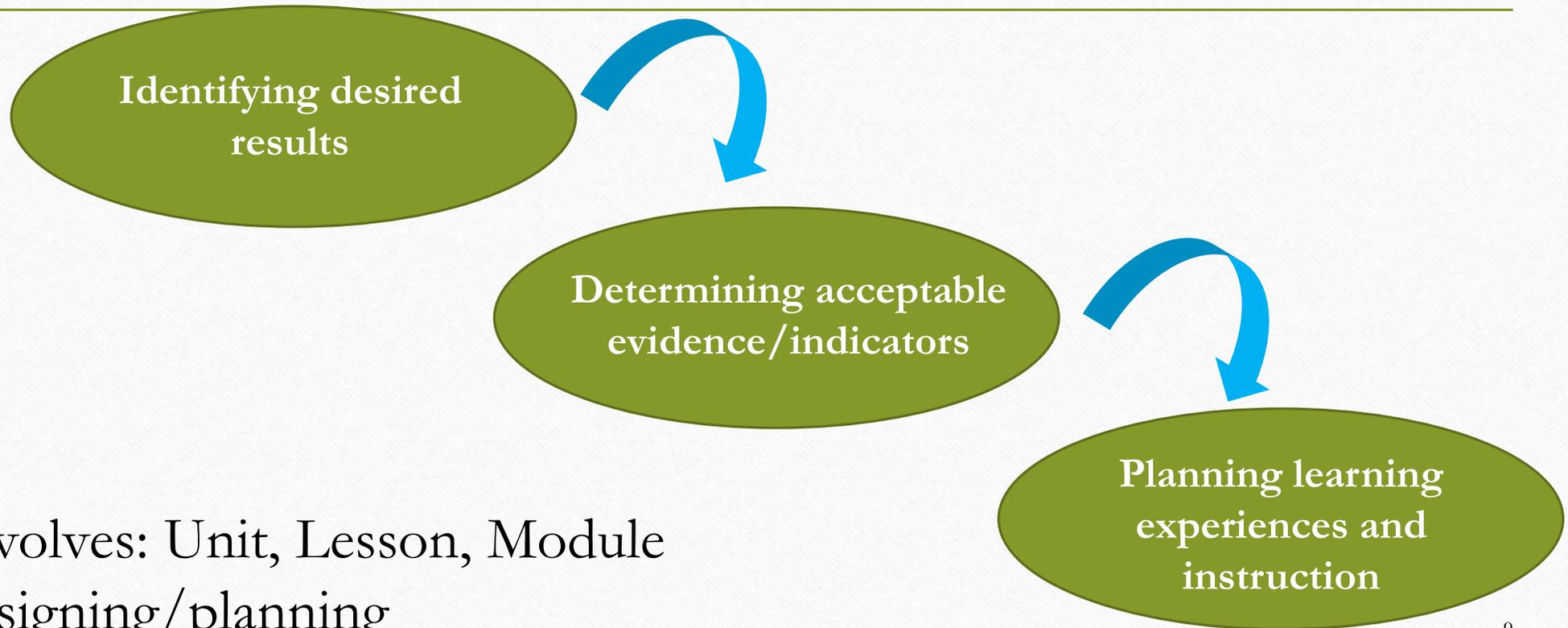
# What is UbD?

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- It is a curriculum design framework for planning units of study/course
  - The focus is on the unit
  - Its central logic is backward design
- It can be used to develop new courses or modify existing ones and make them more alive, focused, and goal-oriented
  - Very well liked approach across the U.S.—all levels

# The Basics of UbD: Backward Planning

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Involves: Unit, Lesson, Module  
designing/planning

# The Eight basic tenets of UbD:

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- 1) UbD is thinking purposefully about curriculum planning
- 2) A primary goal of UbD is developing and deepening student understanding “big ideas” and to transfer learning.
- 3) UbD unpacks and transforms content standards and mission-related goals into “desired results” and “Determining acceptable evidence learning”).

# Eight tenets...

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- 4) Understanding as students' ability to autonomously make sense of and transfer their learning through authentic performance.

Six facets that serve as indicators of understanding are the capacities to:

- *explain, interpret, apply, shift perspective, empathize, and self-assess*

5. Effective curriculum is planned “backward” from **long-term** desired results: Tries to avoid “textbook coverage” problem and “Activity-oriented teaching” which have no apparent purpose.

# Eight tenets...

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6. Teachers are coaches of understanding, not mere purveyors of content or activity.
7. Regular reviews of units and curriculum against design standards enhance curricular quality and effectiveness.
8. UbD reflects a continuous-improvement approach to achievement. Student performance informs adjustments BOTH in the curriculum as well as instruction.

# Backward Planning

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- Begins from clarifying the targeted learning outcome
- It results in:
  - more clearly defined and wisely blended short-term and long-term goals,
  - more appropriate assessments, and
  - more purposeful teaching than typical planning



# Exercise – 1 : Designing a unit backward (Example)

| Stage 1   | Stage 2  | Stage 3   |
|---|--|---|
| <b>If the desired end result is for learners to . . . →</b>                               | <b>then you need evidence of the learners' ability to . . . →</b>  | <b>then the learning events need to . . .</b>   |
| Drive in heavy traffic with aggressive and inattentive drivers without accident or anger. | Handle real as well as simulated driving conditions in which defensive driving is required by traffic and behavior of other drivers. | Help novices become skilled in handling the automobile; help them learn and practice defensive driving in a variety of situations; help them learn to defuse anger using humor and different thought patterns, etc. |
|   |  |   |

# Your turn: Sketch a Unit

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- *Directions:* Sketch out a unit idea in the three stages of backward design. Use the driving example as a model.

# Using the UbD Template to Develop a Unit

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UbD Template is:

- A tool that guides backward design in a unit plan
- Helps make that unit goals, assessments, and instructional plans are coherent and aligned.
- Backward design is a way of thinking; it is not about filling in boxes in a template
  - So, you can start from any “box” you feel more comfortable with

# UbD Template (version 2.0)

| Stage 1 Desired Results  |  |  |  |
|--|--|--|--|
| ESTABLISHED GOALS  | <i>Transfer</i>  |  |  |
|  | <i>Students will be able to independently use their learning to</i>  |  |  |
|  | <i>Meaning</i>   |  |  |
|  | <table border="1" style="width: 100%;"> <tr> <td style="width: 50%;">           UNDERSTANDINGS<br/> <i>Students will understand that...</i> </td> <td style="width: 50%;">           ESSENTIAL QUESTIONS<br/> <i>Students will keep considering/asking...</i> </td> </tr> </table> | UNDERSTANDINGS<br><i>Students will understand that...</i>              | ESSENTIAL QUESTIONS<br><i>Students will keep considering/asking...</i> |
|  | UNDERSTANDINGS<br><i>Students will understand that...</i>  | ESSENTIAL QUESTIONS<br><i>Students will keep considering/asking...</i> |  |
| <i>Acquisition</i>   |  |  |  |
| <table border="1" style="width: 100%;"> <tr> <td style="width: 50%;"> <i>Students will know...</i> </td> <td style="width: 50%;"> <i>Students will be skilled at...</i> </td> </tr> </table> | <i>Students will know...</i>   | <i>Students will be skilled at...</i>                                  |  |
| <i>Students will know...</i>   | <i>Students will be skilled at...</i>  |  |  |
| Stage 2 - Evidence   |  |  |  |
| Evaluative Criteria  | Assessment Evidence  |  |  |
|  | PERFORMANCE TASK(S):   |  |  |
|  | OTHER EVIDENCE:  |  |  |
| Stage 3 – Learning Plan  |  |  |  |
| <i>Summary of Key Learning Events and Instruction</i>  |  |  |  |

# What else is in the UBD package?

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- The guide book
- Online resources to practice with
  - <http://jaymctighe.com/resources/downloads/>
    - Exercises, worksheets, unit examples, etc.
- Resources are like “the training wheels on a bicycle” – they serve until your skill becomes automatic



## Exercise 2: What makes the UbD Template “different”?

### Comparing a Unit Plan before and after UbD

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**Direction:** Carefully study the two plans for a unit titled “Physical Geography of the Horn of Africa.” The first is constructed following the typical way teachers/instructors follow to design a unit. The second is what the unit could look like after UbD approach is applied.

- How are the two targeted learning outcomes qualitatively different?
- How are the two assessment mechanisms qualitatively different?
- How are the learning experiences (learning plans) qualitatively different?

# Stage 1- Identifying Desired Results

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- What long-term transfer goals are targeted?
- What meanings should students make to arrive at important understandings?
- What essential questions will students keep considering?
- What knowledge and skill will students acquire? (Acquisition)
- What established goals/standards are targeted?

# Transfer, Meaning, and EQs

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*Come out of BIG IDEAS!*

- Transferable concepts and processes (p. 5)
  - Not just facts for rote memory
  - Encourage actively constructing meaning (meaning-making)
  - Encourage applying those concepts and processes in multiple authentic contexts
- Generalizable principles (p. 6)
  - NOT just diligent drills and practices
- Schemas, models, theories, and themes
  - Not just correct formulas and perfect answers they can apply everywhere

# Exercise 3- Identify Learning Goals

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*Direction-* Refer to page 13 of your handout. Which of the learning goals listed for the subjects do you think are:

- transfer goals (**T**)?
- meaning making (understanding) goals (**M**)?
- Knowledge or skill acquisition goals (**A**)?

# ***BIG Ideas* come in different forms:**

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- Unifying concepts (e.g., *the modern “flat” world of interdependence*)
- Key strategies and rules of thumb (e.g., *turn complex quantities into the more familiar and simple to work with mathematical equivalences*)
- Endless debates or issues (e.g., *nature versus nurture*)
- Striking paradox (e.g., *poverty amid plenty*)
- Dilemmas (e.g., *we simplify reality in math and science models—with some loss and possible oversight of important detail*)
- Key differing perspectives (e.g., *“terrorist” versus “freedom fighter”*)

# Aha! My BIG Ideas:

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- Unifying concepts (e.g., *Teaching—the most visible profession*)
- Organizing themes (e.g., *Everyone thinks they know how to teach*)
- Endless debates or issues (e.g., *Are teachers born or made?*)
- Striking paradox (e.g., *Teaching—the most disliked profession at the age of desperate call for quality*)
- Major theories (e.g., *Modelling- people tend to teach the way they were taught*)
- Key differing perspectives (e.g., *“position-based” Vs “Career-based” teacher recruitment*)

# Exercise 4- What's your BIG Idea?

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- 1) Choose a BIG Idea you want students to get out of your Unit!
- 2) Then write one or two TRANSFERABLE goals for the unit based on the BIG idea you want students to get.

**Transfer** – requires applying those concepts and processes in multiple authentic [but different] contexts

# Understanding

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- Stated as full-sentence generalizations that we want our students to “come to”
- Are the specific insights, inferences, or conclusions about the big idea you want your students to leave with.
- Should be enduring to be central in the unit design. They are like “the moral of the story”
  - E.g., BIG IDEA- an important theory in geography called “*Geography as destiny*”

EQ- “*Why is that there?*”

UNDERSTANDING – specific meanings such as:

*“Human needs for food, work, commerce, and transportation often determine where people settle and cities grow”*

# Essential Questions (EQs)

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- Questions that frame on-going and important queries about a big idea
- They are explicitly and frequently referred back to throughout the unit
- They should be genuine, relevant, and thought provoking
- They should be sustained **BEYOND** the unit
- Should lead students to new understandings and **MORE** questions!
- They should **NOT** be itching to the right answer

# Examples of EQs:

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- How much power should leaders have?
- Which parts of me and my life are fixed, and which parts of me am I free to change?
- Who is a true friend?
- How can I turn this unfamiliar problem into something more familiar and easier to work with?
- What does this (e.g., picture, text, play) mean?
- Why do people move?
- Where did it go? (energy conservation)

## Exercise 5- What meaning do you want students to make?

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- 1) Write two enduring meanings (understandings) you want students to make out of your unit.
- 2) Write two essential questions you want your students to keep considering throughout your unit.

# Exercise 6- What Skills and Knowledge do Students need to understand the unit?

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- 1) Write two knowledge acquisition goals that students need to engage in meaning-making and inquiries in your unit.
- 2) Write two skill acquisition goals you want students to meet to be able to do .

## Stage 2- Determining Acceptable Evidence

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- *What performances and products will reveal evidence of meaning-making and transfer?*
- *By what criteria will performance be assessed, in light of Stage 1 desired results?*
- *What additional evidence will be collected for all Stage 1 desired results?*
- *Are the assessments aligned to all Stage 1 elements?*

# Stage 3—Plan Learning Experiences and Instruction Accordingly

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- *What activities, experiences, and lessons will lead to achievement of the desired results and success at the assessments?*
- *How will the learning plan help students achieve transfer, and meaning and acquisition, with increasing independence?*
- *How will progress be monitored?*
- *How will the unit be sequenced and differentiated to optimize achievement for all learners?*
- *Are the learning events in Stage 3 aligned with Stage 1 goals and Stage 2 assessments?*

# Assignment

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- 1) Sketch the units of your current course using the sketching table.
- 2) Develop an elaborate plan for one or two of your units using the UbD template.

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*Thank you!*