

Understanding by Design (UbD)

Creating High-Quality Units

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What is Understanding by Design (UbD)?

- A curriculum planning framework, not a prescriptive program.
- A way of thinking purposefully about curricular planning.
- Developing and deepening student understanding.
- QUAD D = Analyze, Synthesize, Evaluate- Adapt and Apply to Real World Unpredictable situations
- Transferring learning through authentic performance.

Backward Design

- Identify a specific learning destination and design and instructional path to get there.
- Occurs with a three stage design process that promotes purposeful teaching:
 1. Identify Desired Results
 2. Determine Acceptable Evidence
 3. Plan Learning Experiences and Instruction Accordingly

Why UbD?

- Want autonomy for teachers and students
- Because students do not apply their learning unless you hold their hands.
- Local assessments are simple and disconnected from content.
- Teachers just march through textbooks and cover content.
- Students do not know why they are learning what they are asked to learn.

Transfer....?

THE NAEP BUS PROBLEM

An army bus holds 36 soldiers. If 1128 soldiers are being bused to their train site, how many buses are needed?

RESULTS

- 70% of the students who took the exam did the appropriate computation correctly.
- However after doing so, 29% of those taking the exam said that the number of buses needed was "31 remainder12."
- Another 18% of the students rounded down instead of up, giving 31 as the number of buses.
- Only 23% of the students gave the correct answer.

UbD in a Nutshell (code)

Standards:

5.1 House should have a door.

5.2 House should have windows.

5.3 House should have a chimney.

5.4 House should have shrubs.



But is this good enough....



UbD in a Nutshell

Stage 1 - Desired Results

- Unpacking and transforming Content Standards into goals
- Framing learning goals into important accomplishments reflective of understanding.

Stage 2 - “Valid” Evidence

- Make sure that what we assess and how we assess follows logically from STAGE 1 goals
- Student is able to insightfully explain or interpret their learning
- Apply their learning in a new, varied, and realistic situation

UbD in a Nutshell continued

Stage 1 - Desired Results

Stage 2 – “Valid” Evidence

Stage 3 – Learning Plan

- Making sure that what we teach and how we teach follows logically from and aligns with STAGE 1 and STAGE 2 goals
- Requires that students be given numerous opportunities to draw inferences and make generalizations for themselves (with teacher support)

Stage 1 – Desired Results

Established Goals

- Drive the vehicle safely and responsibly.
- Negotiate the road correctly.
- Comply with signals, signs and road markings
- Interact appropriately with other road users.
- Minimize risk when driving
- Learn from experience

Transfer

- Drive courteously and defensively without accidents or needless risk.
- Anticipate and adapt their knowledge of safe and defensive driving to various traffic, road, and weather conditions.

Meaning

Understandings

- Defensive driving assumes that other drivers are not attentive and they might make sudden or ill-advised moves
- The time needed to stop or react is deceptively brief, thus requiring constant attention
- Effective drivers constantly adapt to the various traffic, road, and weather conditions

Essential Questions

- What must I anticipate and do to minimize risk and accidents when I drive?
- What makes a courteous and defensive driver?

Acquisition

Students will know...
The driving laws of their state.
Basic car features.

Students will be skilled at...
Procedures of safe driving
under varied traffic, road, etc

Stage 2 - Evidence

Criteria

Assessment Evidence

Performance Task

Their ability to transfer all their discrete learning into real-world (or simulated) responsive, safe, and courteous driving, under varied conditions. For example,

- T,M
1. Drive from home to school and back, with parental and teacher supervision.
 2. Same as #1, but with rainy conditions
 3. Same as #1, but in rush-hour traffic.

Other Evidence

- A
4. Self-assessing driving and parking in Tasks 1-3, in terms of courteous and defensive
 5. Identifying driver errors in video clips, without prompting by teacher
 6. Quiz on basic car parts, functions, and necessary maintenance.

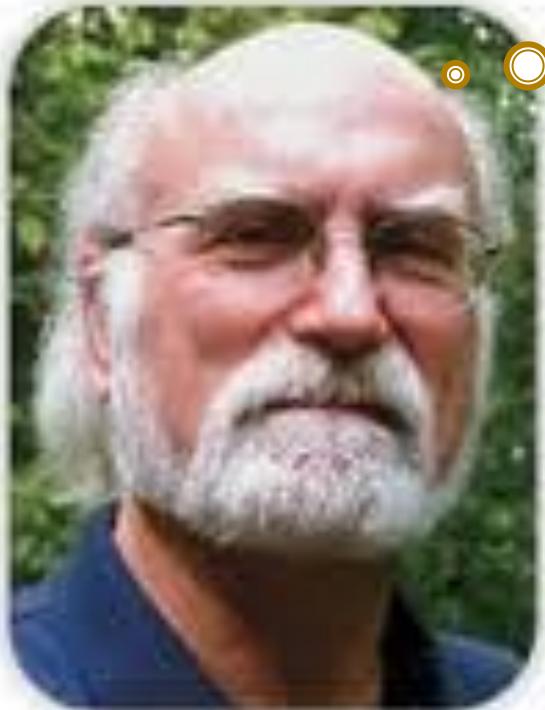
Stage 3 – Learning Plan

Pre-assessment / Learning Events / Progress Monitoring

Applying their learning, first off-road, then on-road. All instruction is carried out and formatively assessed under a five-level system of increased autonomy.

- The skill is introduced
- The skill can be carried out under full instruction
- The skill can be carried out correctly only with prompted
- The skill can be carried out correctly with occasional prompting
- The skill can be carried out consistently without any prompting

Additional Resources



Questions?

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New Jersey Standards Clarification Project

Core Curriculum Content Standards - CADs