The Science of Small:
Innovation through Quick (and Sustainable) Wins

Measurement, Technology, & a Science of Small

Dr. Janet Twyman
June 13, 2017
Temple University
Philadelphia, PA
“Education is the most powerful weapon which you can use to change the world.”

Nelson Mandela
What is the world’s most common form of instruction?
What is likely the least effective form of instruction?
Choral Responding

Active Student Responding

Source: Exceptional Children: An Introduction to Special Education (9th ed.) by William L. Heward. © 2009 by Pearson Education.
Let’s Try It

Where there’s fire there may be . . . smoke

A short funny story is called a . . . joke

A well-know soft drink is a . . . Coke

The white of an egg is called the . . albumen
Real World Applications

- Active Student Responding
- Technology to Enhance/Personalize Learning
- Student Learning Pictures (visual displays of data)
What is technology?
Technology of Tools and Process
Active Responding

Simultaneous Responding

Kahoot
### Active Responding with DATA

#### REPORT EXAMPLE

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<th>Round this</th>
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Active Responding

Simultaneous Responding

Mentimeter

Interact with your audience!!!!

www.menti.com

53 27 52
Active Responding

Guided Notes

Types of Verbs notes

I. What is a verb?
   - A verb is a word used to express an __________, a __________, or a __________ of __________.
   - The three types of verbs are: __________, __________, and __________.

II. Action verbs (from _________ Verbial)
   - An action verb tells what the __________ does.
   - Action verbs can be __________ or __________.

Mr. Hoffmann's examples: Anger __________ guitar. (physical) Everyone __________ a snow day. (mental)

Your examples:

III. Linking verbs (from _________ Verbial)
   - Linking verbs connect __________ to __________ or __________ that define/describe them.
   - Mr. Hoffmann's matchmaking Link Verbian friend: __________
   - The oddballs:

   **To tell if a verb is working as an action verb or linking verb, let __________ do the work!**

IV. Helping verbs
   - Helping verbs help main verbs express __________ of __________. They can't stand __________, though! When they team up with an __________ verb, they form a __________.

Mr. Hoffmann's example: But Mrs. Gelby, I __________ my geography project!

Your example:
goformative.com/join

Name Required: Just use your initials

Quick Code: AUUT944
Emerging Tech-based ASR Research Indicates:

- increased student engagement & active participation
- higher frequencies of teacher led questioning
- higher rates of student approval
- increased positive student academic outcomes

Caldwell, J. E. (2007);

Also: Gauci, Dantas, Poirier & Feldman, 2007; Martyn, 2007; Williams, & Kemm, 2009)
Practice Guide from CIL

ENNANCING ENGAGEMENT
THROUGH
ACTIVE STUDENT RESPONSE

www.centeril.org/publications
Educational Technology...

.. improves contact and control of the variables of which learning is a function.