WELCOME TO THE

2013-14 ELEMENTARY PRINCIPALS' MATHEMATICS AND SCIENCE LEADERSHIP ACADEMY

EIGHT STEP PLAN

- WHO?
- WHY?
- SO THAT?
- WHEN?
- WHERE?
- WHAT?
- WHAT FOR?
- HOW?

BOOKS

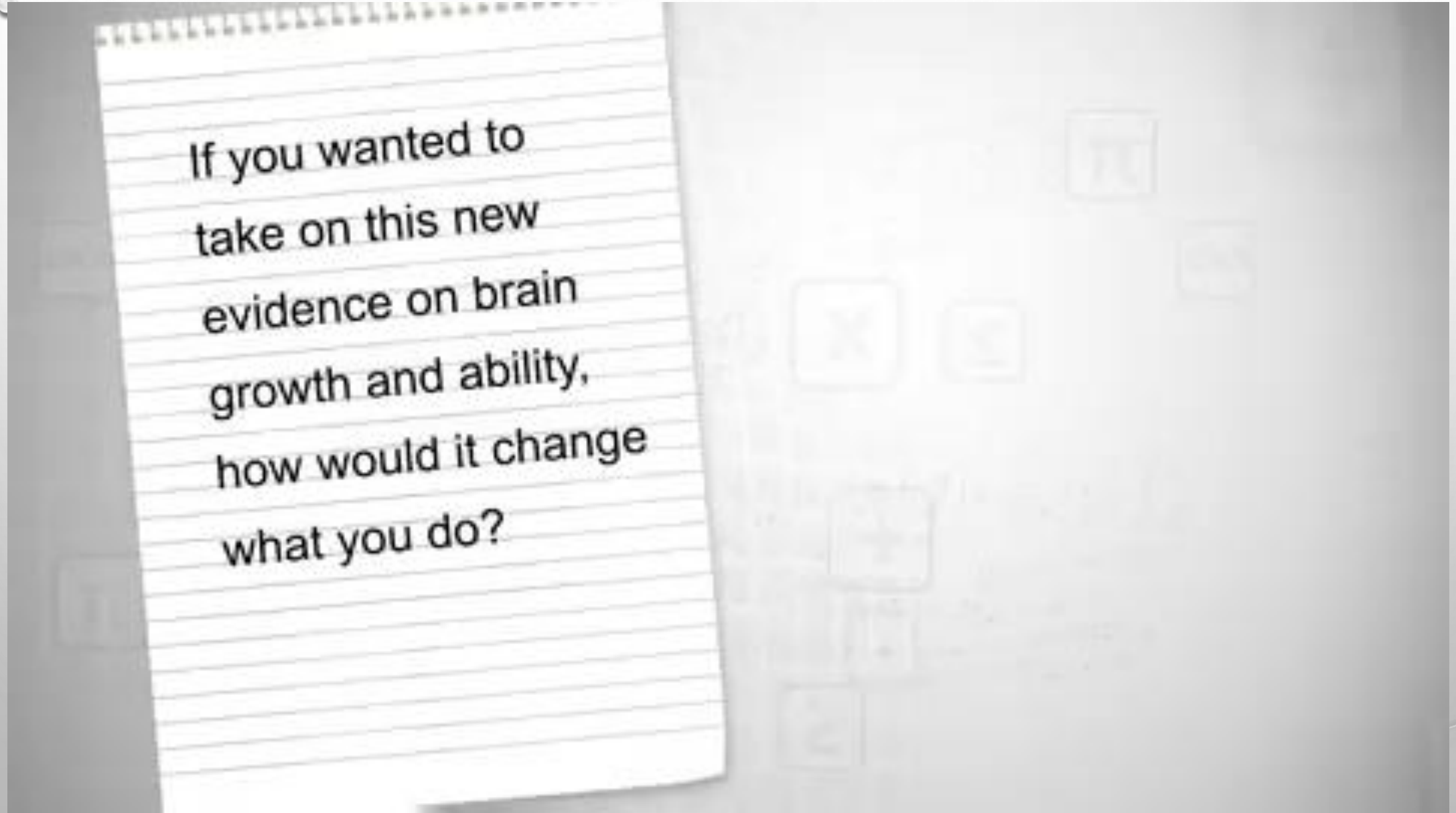
ADULT LEARNING – OR, HOW WE TRY TO CARRY ON IN THIS HERE ACADEMY

- VELLA – DIALOGUE

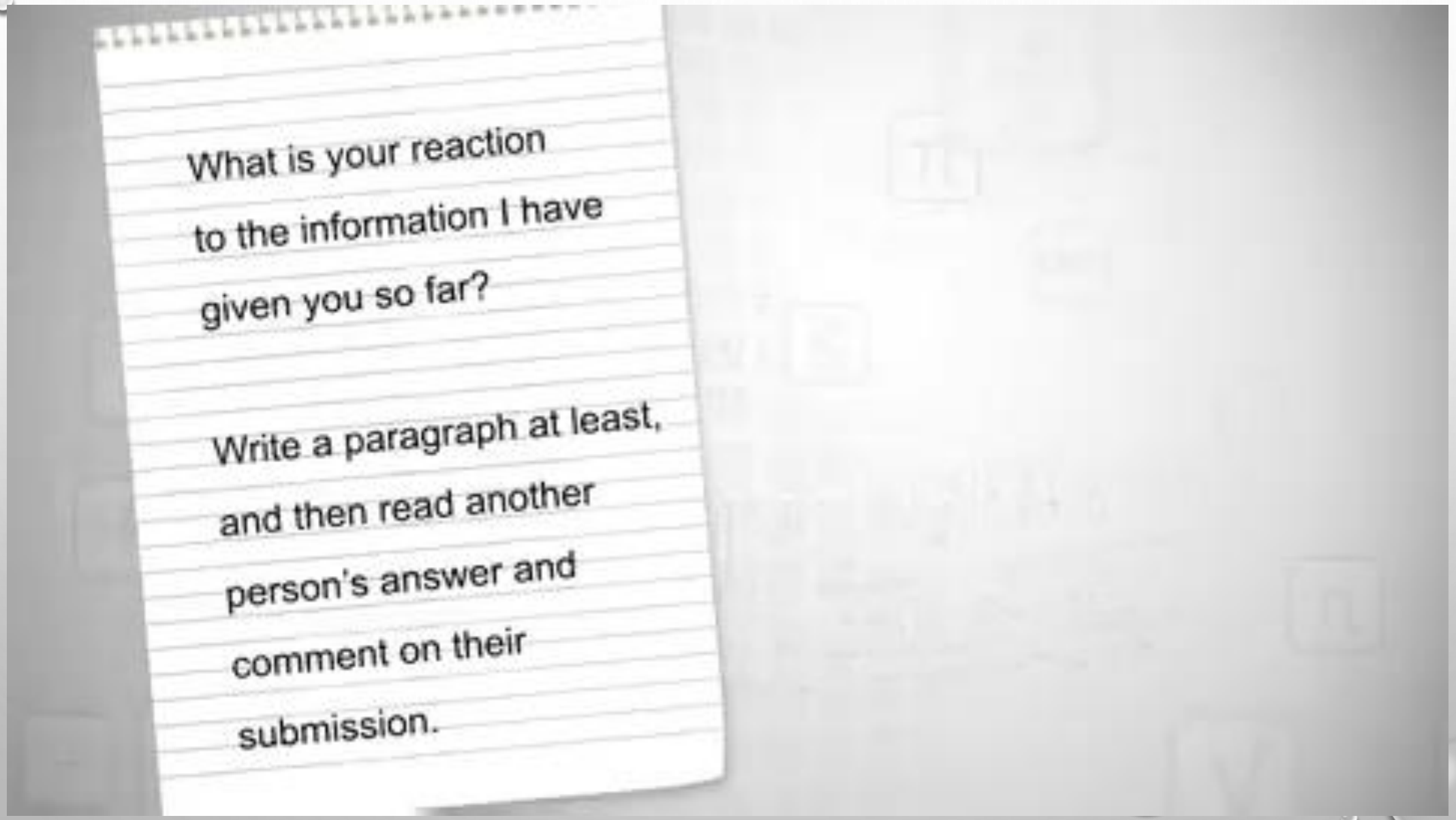
MATH VISION FOR UTAH

- ALL STUDENTS CAN LEARN MATHEMATICS AT A HIGH LEVEL

MINDSETS


If you wanted to
take on this new
evidence on brain
growth and ability,
how would it change
what you do?

MINDSETS


What is your reaction
to the information I have
given you so far?
Write a paragraph at least,
and then read another
person's answer and
comment on their
submission.

MATH VISION FOR UTAH

- SHIFT INSTRUCTION TO MATCH THE MORE RIGOROUS EXPECTATIONS OF THE UTAH CORE STANDARDS
- COMING ATTRACTIONS!

FOCUS

COHERENCE

RIGOR

MATH VISION FOR UTAH

- DEVELOP A GROWTH MINDSET TOWARD MATHEMATICS
- UNDERSTAND MATH CONCEPTS AND PROCEDURES
- BECOME FLUENT IN MATHEMATICS
- USE MATH TO SOLVE PROBLEMS
- DEVELOP HABITS OF MIND (MATHEMATICAL PRACTICES)
- BE COLLEGE AND CAREER READY
- ENJOY MATHS BOTH FOR WHAT IT CAN BE USED FOR AND FOR WHAT IT IS

MATH TEACHING PHILOSOPHIES AND METHODS

- THE UTAH CORE STANDARDS DO NOT MANDATE ANY PARTICULAR CURRICULUM
- NOR DO THE STANDARDS MANDATE A PARTICULAR TEACHING METHODOLOGY
- THERE ARE MANY METHODS THAT WORK
- THERE ARE MANY METHODS THAT DON'T WORK
  - STAND AND DELIVER
  - FULL BLOWN INQUIRY
  - FAILURE TO LET STUDENTS THINK AND SOLVE PROBLEMS

THE COMPREHENSIVE MATHEMATICS INSTRUCTION FRAMEWORK

- BALANCED APPROACH TO LEARNING MATHEMATICS
  - CLEAR MATHEMATICAL PURPOSES
  - PROBLEM SOLVING
  - MATHEMATICAL INQUIRY
  - MATH DISCOURSE
  - QUESTIONING
  - DIRECT INSTRUCTION
  - AND SO ON

MINDSETS

- IN THE END, WHAT MATTERS?
  - STUDENTS KNOW THEY CAN SUCCEED IN MATHEMATICS (GROWTH MINDSET)
  - STUDENTS BECOME PROFICIENT IN MATHEMATICAL PRACTICES (HABITS OF MIND)
  - STUDENTS UNDERSTAND CONCEPTS
  - STUDENTS UNDERSTAND PROCEDURES
  - STUDENTS USE PROCEDURES TO SOLVE PROBLEMS
  - STUDENTS ARE FLUENT IN MATHEMATICS
  - STUDENTS APPLY MATHEMATICS IN THE REAL WORLD