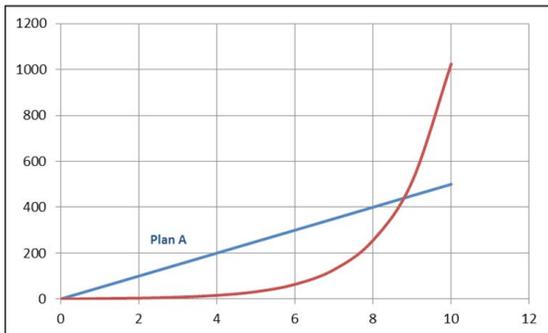


Why (AR)²?

The jobs of the 21st century will, at a minimum, require an associate's degree or better. For students to meet these challenges, and with the release of the Career and College Readiness Standards, higher level math skills are needed.

Less than 5% of adult education teachers were math majors in college, and many, at best, only completed up to algebra when they were students.

Both our students and our teachers need strategies to understand these higher level math demands at both the conceptual and algebraic level. (AR)² helps prepare teachers to meet these challenges.



“ I built upon my algebra understanding ... I learned how to apply a system of equations to real life; I learned different methods to solve a system of equations. ”



Contact Us!

Adult Numeracy Center

To learn more about (AR)², or about our other professional development offerings, custom curriculum development services, or consulting services, visit our website:

<http://adultnumeracy.terc.edu>

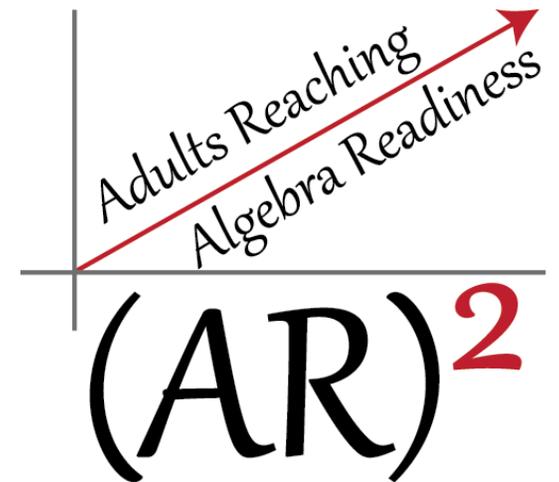
Or, contact us:

phone: **617-873-9600**

email: adultnumeracy@terc.edu



Adult Numeracy Center at TERC
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Adults Reaching Algebra Readiness (AR)²

What is (AR)²?

This professional development series builds upon the content presented in ANI (Adult Numeracy Instruction)-PD. (AR)²:

- Is research-based;
- Offers sessions held over an extended duration;
- Features collaborative activities
- Incorporates support activities between each session
- Makes connections to College and Career Readiness Standards
- Develops teachers' conceptual understanding
- Teaches new strategies to teach for understanding

(AR)² begins with a review of linear functions, including in-out tables, equations, and graphs and progresses to systems of equations, always relating to real-life.

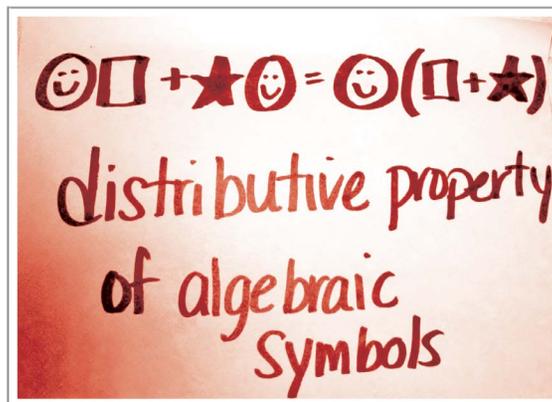
Activities then build from linear functions to nonlinear functions and explorations with exponents. Geometry concepts are explored as ways to apply algebraic reasoning in real-life contexts, including both linear and nonlinear examples.

Throughout the sessions, we continue to connect to basic number properties which are the focus on the College and Career Readiness Standards and other core ideas introduced in TIAN and ANI.

Overarching Objectives

(AR)² attendees will be able to:

- turn everyday experiences into opportunities for teaching algebraic topics;
- work with algebraic expressions/ equations in various formats: verbal model, input/output tables, graphs and equations;
- solve a system of equations graphically and algebraically;
- manipulate symbols in decontextualized problem to solve various algebraic equations;
- make connections to the College and Career Readiness Standards;
- use real-life problems to analyze linear and nonlinear situations.

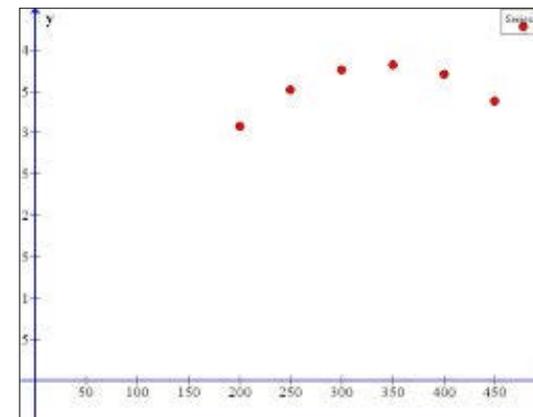


Four Big Ideas

The Four Big Ideas, first developed during the TIAN project (Teachers Investigating Adult Numeracy) and further developed in the Adult Numeracy Instruction (ANI)-PD, are key components of (AR)².

These four overarching big ideas are:

- Math as Communication
- Math as Connections
- All Strands of Math at All Levels
- A New Definition of Math Proficiency (conceptual understanding, adaptive reasoning, procedural fluency, strategic competence, and productive disposition)



“ I liked focusing on fewer skills, but more depth; we didn't move too fast, which was important for this topic. ”