

Number Sense: Teaching About Parts and Wholes

Teaching students how to estimate, do mental math, and use calculators will help them to better understand how to use numbers. This course focuses on how to help adult students answer key questions: When is it necessary to have an exact answer, and when is an estimate sufficient? When calculation is necessary, which tool is appropriate to use? This course examines how students develop and apply number sense and provides lots of teaching strategies and activities that you can use right away.

By the end of the course, you will be able to:

- help students choose the right computation tool (estimation, mental math, calculator, paper and pencil for a problem)
- compare and contrast two ways to help students understand fractions and their equivalents
- design activities that use estimation, mental math, and reasonableness strategies

Course Topics

- Definitions of Number Sense
- How Number Sense Develops
- Number Sense Applied
- Learning How to Estimate
- When to Use an Estimation Activity
- Computational and Measurement Estimations
- Computation vs. Mental Math
- Compatible Numbers
- Decomposing Numbers
- Benchmark Fraction Models
- Establishing Benchmarks
- Comparing Fractions
- Fractions to Percents
- Benchmark Percents
- When and How to Use a Calculator

This course is part of a six-part series of online courses focused on effective adult numeracy instruction. Other courses in this series are:

- *Foundations of Teaching Adult Numeracy*
- *Teaching Reasoning and Problem-Solving Strategies*
- *Geometry: Teaching About Shapes and Their Measures*
- *Data: Helping Students Interpret Statistical Representations*
- *Algebra: Introducing Algebraic Reasoning*

Prerequisite: Foundations of Teaching Adult Numeracy or comparable experience

Course Format: facilitated, online

Throughout this six-week course you will follow a weekly schedule of activities and readings, as well as asynchronous electronic discussions with the facilitator and course participants.

Estimated Completion Time: approx. 2-3 hours per week; 12 hours total

Completion Requirements: Successful completion requires participants to complete required assignments, participate in asynchronous discussion, and score at least 80% on the course exam. Participants may download a Certificate of Completion upon successful completion of course requirements.

Participants are encouraged to seek approval in advance from their agency or organization for continuing education or professional development credits that may be awarded for successfully completing this online course.

Course Fee: \$179 (\$152.15 for ProLiteracy members. Group discounts available.)

Questions? Please call 888.528.2224 ext. 283 or e-mail prodev@proliteracy.org.

**For information about upcoming course dates and registration,
please visit ProfessionalStudiesAE.org.**