

MATH MANIPULATIVES WORKSHOP

Theory

- In order to develop every student's mathematical proficiency, leaders and teachers must systematically integrate the use of concrete and virtual manipulatives into instruction ... -National Council of Supervisors of Mathematics (2013)
- Algebra -Move from the concrete to Representational to Abstract
- Impact of the frequency of use of math Manipulatives –National Assessment for educational Progress
 - Use weekly- learners score 72% ahead of those who use it monthly
- Manipulatives can help to build focus, coherence and rigor by building conceptual understanding, Application and Procedural; fluency
 - Learning and achievement at a higher level when used well
 - Understanding of how to do mathematics is integrated
 - How mathematical concept are taught consistently across multiple levels
 - Students are really reasoning about mathematics Critical and strategic thinking