



Best Practices for Mastering Fact Fluency

“Mastering Fact Fluency: Are They Game?”

Summary: Connie Godfrey, a second grade teacher, discusses how math games focused around addition and subtraction fact fluency are a powerful tool for mastery when used meaningfully by teachers and students. Discourse about strategy is an important part of making the games a learning tool.

Practical Applications:

Fact Fluency is Developmental (Baroody, 2006)

1. Counting Strategies – object or verbal counting
2. Reasoning Strategies- using known facts and relationships to solve an unknown combination
3. Mastery- achieving automaticity in basic math fact combinations

Fact fluency games can help children move through these stages to master addition and subtraction facts in primary grades. Using a “take home binder” this teacher tracked how much time students spent playing the fluency games at home and taught students how to talk about their strategies to increase math discourse. By modeling each of the phases, the teacher engaged students in meaningful math talk that helped her track their movement through Baroody’s phases. Direct instruction of the strategies encouraged students to be aware of what strategy they were using and openly discuss it with a partner.

As students move through mastery of facts to 10, choosing fluency games that are easily adaptable to higher fact mastery is important. For example, “Turn Over Ten”, similar to a memory game, can easily be adapted to “Turn Over My Working Number”, which can be any desired sum.

Cyber games offer variety for fluency development games.

Conclusion and Citation:

By the end benchmark tests of her school year, 19 of Godfrey’s students met or exceeded expectations for fluency. The five students in her class who did not meet proficiency made great gains from beginning of the year benchmark testing.

Godfrey, C., Stone, J., “Mastering Fact Fluency: Are They Game?” *Teaching Children Mathematics* 20.2 (September 2013) pp. 96-101 <http://bit.ly/1haOKq9> (subscription only).