Art Intervention in One-on-One Math Classes for 7–12th Grade Students with ADHD

Backgrounds:

In one-on-one math classrooms for 7–12th grade students with ADHD, sustaining focus on abstract concepts like algebra and geometry is a common challenge. This intervention draws on key ideas from course readings:

- Laura Aldridge's ***Make Space*** (sensory art as an engagement tool for marginalized learners)
- Andrea English's ***Educative Listening*** (prioritizing students' sensory-cognitive cues).

This case study is adapted from Aldridge's sensory workshops, reimagined for secondary math's complex topics.

Context:

One-on-one math lessons for 7–12th grade students with ADHD.

Impacted groups:

ADHD students (needing sensory-rich, interactive ways to grasp advanced math) and their tutors (seeking strategies to minimize distraction and deepen conceptual understanding).

Initial Intervention Proposals:

1. Sensory Algebra Sculpting:

Students use materials like wire (stand for linear equations),

foam blocks (stand for quadratic curves), and fabric (stand for inequality shading) to build 3D representations of algebraic concepts. This leverages ADHD learners' sensory strengths, as highlighted in Aldridge's work on ***non-elitist art engagement***.

2. Rhythmic Geometry Proofs:

Tutors introduce hand drums or metronomes to set a rhythm for breaking down geometric proofs (e.g., one beat for state the theorem, three beats for cite congruent triangles).

Tutors practice English's ***educative listening*** by adjusting rhythms based on students' engagement signals (e.g., faster tempo if a student leans forward, slower if they fidget).