**Cuyahogo Community College Workshop Exploring Cooperative Learning Techniques in Developmental Math Courses A Retention- Success Strategy**

**The following activities will be used for our exploration and discussions about cooperative learning**

1. **Ice Breaker- Introductions in Pairs – (complete questionnaire before session starts)**
   1. **Sit with people whom you do not know real well, in groups of 4 please**
   2. **Interview your new math buddy based on the questionnaire**
   3. **Cognitive rehearsal- Introduce your new math buddy to the table**
   4. **Whole class introductions-looking for common themes**
2. **Exploring orders of operations in pairs**
   1. **Introduction to PEMDAS**
   2. **Pairs worksheet with multiple problems- presentations of solutions to whole class**
3. **Pair Reading Explaining Structure- to explore class syllabus/textbook section**
   1. **We will use this exercise to focus on mastery assessment/testing 4.**
4. **Reorganize groups by random process (count off by fours and regroup)** 
   1. **ice breaker- find 5 things everyone has in common not related to work or school**
5. **Jig Saw Structure- explore simple FOIL factoring in groups of 4.** 
   1. **Start with base group, reform into expert groups, experts return to base groups and teach their base group about their factoring case.**
   2. **Pairs jig saw- complex foil factoring- trial and error versus grouping**
6. **Writing in Pairs- Write a procedure for the” grouping method” for factoring quadratics**
7. **Reorganize groups using birthdays and count off by fours (there will be a twist to this exercise). Ice breaker- find something that represents who you are. (from your wallet, pocketbook, pockets)**
8. **Polynomial/factoring review- individually /together**
9. **Pair writing- two column format- solving rational equations and linear equations**
10. **Time permitting- Pair/Quad/Whole group Discussion- What are your developmental student like?**
11. **Workshop feedback**