This study was designed to measure if a teacher’s intentional interventions during sensory play had an impact on the emotional development of preschoolers. The aspects of emotional development measured were the ability of children to recognize and label the expressed emotions of others and the frequency of self regulatory, aggressive, and non-aggressive problem solving behaviors. Data was collected from a control group and an experimental group using two self designed research instruments. Results were analyzed using multi-variant analysis indicating no significant difference in behavior changes by group. While quantitative data indicates no significant change at a class wide level, accounts of individual children illuminate the need for further research on this topic.