

Enhancing Parent Involvement in NC-CCSS for K-2 Mathematics

Key Terms— Parent Involvement, Common Core State Standards, Homework, K – 2 Mathematics

In this study, the 2014 REU math team developed and provided a workshop that assisted parents in understanding the North Carolina Common Core State Standards for K-2 Mathematics to assist with student homework assignments. Parent involvement is defined as parent participating in the educational processes and experiences of their children. A chi-square analysis was used to analyze data collected from the pre survey and the post survey administered to participants in the workshop. The study revealed all of the individual components of parent involvement were positively and significantly related to educational goals. The study identified various aspects of parent involvement that yielded statistically significant results in affirming that parent involvement attributed to urban student achievement. These findings were particularly helpful for indicating which kinds of parent involvement influenced academic success. Most notably, parent expectations and styles demonstrated a strong relationship with scholastic outcomes. Parent expectations and styles created an educationally oriented ambience that established an understanding of the certain level of support the child needed to succeed academically. The REU mathematics team focused on three essential questions in this study: (1) What practices will increase parent awareness of K-2 NC-CCSS for mathematics at P. W. Moore Elementary School? (2) What methods can be used to strengthen parent skills in assisting with mathematics homework assignments at P. W. Moore Elementary School? (3) What actions can be taken to motivate parent involvement in the school improvement process focusing on mathematics at P. W. Moore Elementary School?

The Common Core State Standards are a set of clear college- and career-ready standards for kindergarten through 12th grade in English language arts and mathematics. Forty-three states have voluntarily adopted and are working to implement the standards in their school systems. These standards were designed to ensure that students who graduated from high school are prepared to succeed in the transition to post-secondary education or the workforce [1]. The Common Core State Standards are organized in eleven domains for K-12: Counting and Cardinality, Operations and Algebraic Thinking, Numbers and Operations in Base 10, Number and Operations- Fractions, Measurement and Data, Geometry, Ratios and Proportional Relationships, The Number System, Expressions and Equations, Functions, and Statistics and Probability [1].

On June 2, 2010, the North Carolina Public of Instruction had adopted the Common Core State Standards in K-12 Mathematics and K-12 English Language Arts that were released by the National Governors Association Center for Best Practices and the Council of Chief State School Officers [4]. North Carolina became a part of the first group of states to embrace the improved goals for the educational system to ensure children are prepared to succeed in college and work by adopting the new standards [4].

Parent involvement is defined as the level of participation a parent has in their child's education in the school or home setting. With the adoption of the Common Core State Standards, it is understood that parent involvement becomes a beneficial factor in effective student achievement and improve parent's attitude about mathematics education.

The benefits for parents who have children that are involved tend to be academically successful in classroom assessments and standardized tests. The parents prioritize children's school attendance and homework completion. When students have a positive attitude about their education, they are motivated to enroll in higher-level programs. As a result of parent involvement, parents are able to communicate in the mathematics language with their children. Thus, as parents become aware of what children are learning in the classroom and they must become proactive in aiding children in their homework assignments. Also, parents desire to be involved in school and community related activities [2].

Prior to completion of the research workshop, the REU math team attended P. W. Moore Elementary School to observe teacher-student interactions of Kindergarten, 1st grade, and 3rd grade mathematics classrooms. Key observations were obtained to determine the benefits of parent involvement and in relation to the Common Core State Standards for Kindergarten, 1st grade, and 2nd grade mathematics. Dr. Stephanie D. B. Johnson provided suggestions on how to create hands-on activities. These activities were demonstrated to parent attendees of the research workshop. The pre-survey and the post-survey were used to assess the parent workshop's effectiveness embodied the three focus questions.

The data results gathered from the pre-survey and the post-survey instruments were used to determine whether or not the information conveyed during the workshop produced any changes in parents' attitudes. Parents' perceptions about homework assistance in Kindergarten, 1st grade, and 2nd grade mathematic and their involvement in school instructional activities had significantly improved.

In conclusion, the workshop provided information on the North Carolina Common Core State Standards and guidance to help parents in guiding their children in learning future mathematical skills and topics taught in the classroom. The workshop assisted parents to gain a understanding of the standards and it provided parents with a different perspective about mathematics education and the importance of becoming involved with their children's education [3].

Resources

- [1] Common Core State Standards Initiative. (2014). *Mathematics Standards* [Online]. Available: <http://www.corestandards.org/Math/>
- [2] G. Olsen and M.L. Fuller. (2010, June 20). *The Benefits of Parent Involvement: What Research Has to Say* [Online]. Available: <http://www.education.com/reference/article/benefits-parent-involvement-research/>
- [3] Michigan Department of Education (2001). *WHAT RESEARCH SAYS ABOUT PARENT INVOLVEMENT IN CHILDREN'S EDUCATION In Relation to Academic Achievement* [Online]. Available: http://www.michigan.gov/documents/Final_Parent_Involvement_Fact_Sheet_14732_7.pdf
- [4] North Carolina Department of Public Instruction. (2014). *NC Math Common Core – Elementary* [Online]. Available: <http://maccss.ncdpi.wikispaces.net/Elementary>