COUNT FAMILY MATHS KZN: IT TAKES A VILLAGE TO RAISE A MATHEMATICIAN

[1]Gugulethu Shongwe, [1]Zandile Nene, [2]V.D. Mqadi,
[3]Sibongile Phungula, [3]Petros Sithole and [4]Victoria Lindsay
[1]Deyi Primary, [2]Nomageje Primary, [3]KwaGasa Primary and [4]Family Maths Project

In spring of 2012 COUNT launched a Family Maths programme in six rural primary schools in Ugu District, KZN. A team of 5 teachers and 7 youth were trained and mentored and have proven to be highly effective facilitators. Parents and learners attended in large numbers and with enthusiasm. Pre- and post-tests of Grade 3 and Grade 6 learners showed significant growth in mathematical knowledge and skill. Our proudest achievement, however, is the change we see in the culture of mathematics. Tensions between teachers and parents are replaced by understanding, respect, and cooperation. Fear and loathing of mathematics are replaced by love and enjoyment. Many learners, parents, grandparents -- and even teachers -- now regularly pursue challenging mathematical problem solving for pleasure.

FAMILY MATHS IS AN INVITATION TO DO WHAT MATHEMATICIANS HAVE ALWAYS DONE: PLAY AND THINK, THINK AND PLAY

- Background : Family Maths was developed at the University of California at Berkeley. Rooted in the belief that access to mathematics is a human right, and that all are mathematically able, Family Maths promotes fair and rich access.
- Engaging Parents/Grandparents/Carers is key: Parents want to help their children learn maths, but often don't know how. This programme is accessible to all parents, whether or not they have been to school or know how to read, and yet the maths is interesting enough to challenge even the most highly educated parents. All activities require only free or inexpensive materials commonly found at home -- or require no materials at all. The programme teaches parents games they actually play with their children, to help them learn maths.
- Challenges: Challenges unique to South Africa, challenges unique to poor rural communities, and approaches to overcoming both, are discussed.
- In Their Own Words: Parents, children, teachers, and Family Maths facilitators, tell stories of their experience with Family Maths, and share insights.
- The Games Mathematicians Play: Recreational maths – the games, puzzles, and brainteasers invented by mathematicians from pre-antiquity to the present, for their own amusement -- form the heart of Family Maths. All are mathematically thought provoking, yet accessible to all audiences. Example activities are presented.

Shongwe, G., Nene, Z., Mqadi, V., Phungula, S., Sithole, P. & Lindsay, V. (2013). COUNT Family Maths Kzn: It takes a village to raise a mathematician. In Z. Davis & S. Jaffer (Eds.), *Proceedings of the 19th Annual Congress of the Association for Mathematics Education of South Africa*, Vol. 2. (pp. 123). Cape Town: AMESA.