

## **ABSTRACT: Project UMIGO**

The failure to acquire mathematic skills and numeracy is as serious and tragic issue with devastating individual and social consequences. The National Assessment of Education Progress revealed that sixty percent of fourth graders failed to attain mathematics proficiency. In addition, the rapid growth of digital commerce and communication dictates the need for skills in spatial thinking required to participate in the new digital culture. Without a solid foundation in mathematics and digital competencies, many of our youth will be at risk to be high school dropouts, facing fewer career opportunities, and lower earnings potential.

The UMIGO Partnership will respond to this need with the goal of increasing children's numeracy acquisition, mathematics achievement outcomes, and digital competency, targeting low-income children and their families. To achieve this goal, the partnership will create and deliver multiple-platform, media-based, effective mathematics curriculum in the form of transmedia storytelling and activities, and will provide corresponding support materials and digital resources for parents, caregivers, and teachers. The use of scientific, evidence-based research will allow the UMIGO Partnership to establish strong evidence of the intervention's educational effectiveness and determine new measures of student performance outcomes relevant for new media learning. Scientific research will provide formative feedback and guidance in the process of content creation.

Windows on the World Communications, a public telecommunications entity, will partner with Wildbrain, an entertainment and animation company, and The Michael Cohen Group, evaluation experts, to develop and evaluate the World of UMIGO. UMIGO will offer child-initiated learning and creative play opportunities for students ages two to eight, providing them with the digital paint, glue, blocks and other tools that will allow them not only to learn the basic principles of mathematics but also to develop and refine their abilities to think creatively, invent, and work collaboratively.