

Conduct Research Examining the Use and Effectiveness of an Augmented Reality-based Science Application

Client. SKT

The Challenge. Science education is playing a critical role in maintaining US competitiveness in the world marketplace. There is a growing recognition that the teaching of science can be enhanced through technology. When SKT developed its new augmented reality enhanced science textbooks, they looked to SEG to help understand how the product was being used in the classroom and how effective the technology was in teaching science.

The Solution. SEG conducted a project to help SKT develop the prototype technology and conduct the research to explore how it would be used in the classroom and whether or not it was effective. First, SEG helped SKT develop the product and deploying it in the schools. Second, SEG designed and conducted a scientific effectiveness study of SKT's augmented reality product. A quasi-experimental design was used to investigate program effectiveness. Classrooms in four states participated in the study, with some the classes using the SKT product and others delivering instruction with just the book component or no supplementary materials at all. The science skills of the groups were measured at the beginning of the study and at the conclusion of study. The proficiency level of the two groups was compared statistically to determine if students using SKT showed greater improvement. The effectiveness of the Program was described in a written report for use by SKT.