Studies have indicated that intergenerational relationships can assist children to learn more efficiently by providing support. As new forms of media have emerged and become pervasive in our society, it is important to understand how children use them to learn. Just as television coviewing has been observed by past researchers to aid youths to learn with parents and grandparents, three-dimensional virtual learning environments (VLE) are being investigated for their potential. This study seeks to examine the potential learning impact on children, ages 8 to 13, encountering a three-dimensional virtual learning environment with their grandparents. The primary research question this study examines is whether children exploring a 3D VLE with a grandparent learn the information being conveyed within the environment more effectively. A second aspect of the study considered if the grandparent-child pair would spend a greater amount of time in the virtual environment compared to a child exploring alone. Additionally, this research seeks to determine if there are other benefits a child could gain while interacting with a grandparent while using a VLE. This study used ChronoLeap: The Great World's Fair Adventure, an educational VLE developed at the University of Central Florida under a National Science Foundation Informal Science Education grant. ChronoLeap permits children to explore a virtual representation of the 1964-65 New York World's Fair where they can discover the roots of current technology in their 1960s form and its evolution to the present. This environment affords a child a unique opportunity to encounter a virtual recreation of an era in which their grandparents would have firsthand memories potentially eliciting the grandparent's personal reflections.

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Approved for distribution by Lori C. Walters, Committee Chair, on October 15, 2019.

The public is welcome to attend.