

The presenter will discuss our 2007 research project, funded by the National Science Foundation and conducted in partnership with Gallaudet University's Laurent Clerc National Deaf Education Center, entitled, "Lifelike, Expressive Avatars for the Instruction of Young Deaf Learners. "The project identified signing styles of teachers communicating with young students utilizing the principles of the Shared Reading Project (Schleper, 1997). The Sign Language Team at Vcom3D created an animated version of a story, titled, The Forest, which was originally signed and videotaped by a Deaf teacher fluent in ASL from the Clerc Center.

The reading comprehension of Deaf/HoH students was evaluated after implementation of the animated story. Results verified that the animation was fully successful in capturing the pedagogical methods and signing styles used by the Clerc Center teacher. The students reported no difficulty understanding the animated signing and comparison of pre- and post- results showed significant improvement. This tool for creating ASL context could not only boost student's ability to learn ASL grammar, it would reinforce a bilingual, bicultural educational approach.

Relevant to our Life-Like Expressive Avatar project, the presenter will also demonstrate evidence of the initial success in utilizing mobile devices, such as the Apple® iPod. Vcom3D, Inc has recently begun the U.S. Department of Education Phase II SBIR project to develop an exemplar Mobile Language Reference Tool for Deaf/HH K-12 Students. For the Phase I of this project, Vcom3D developed and tested a prototype Mobile Language Reference that included Sign Language definitions of scientific terms, as well as explanations of multi-sense words and English idioms. Initial testing of the Mobile Language Reference has indicated a high level of user acceptance, and provided evidence that the system can improve learning outcomes.

Integrating 3D animated avatars is shown to positively impact eLearning in all industries and educational software. By providing educators with tools that allow them to develop instructional content for Deaf/HH children using animated ASL characters, it is expected to have the same positive impact on the students' engagement and ability to learn. Using our tools in the classroom empowers the teacher and the student to overcome barriers to language acquisition and understanding. Vcom3D, Inc. recognizes these capabilities and with their groundbreaking technology aspires to be the leader in ASL Instructional Technology.

Reference:

Schleper, D. R. (1997). Reading to Deaf Children: Learning from Deaf Adults. Washington, DC: Laurent Clerc National Deaf Education Center at Gallaudet University. (ISBN 0-88095-212-1)