Within this article is information on three different models on the effects of virtual reality on three different topics. I believe this to me pertinent to our project of virtual reality learning as this article directly tests what different affordances of the virtual reality learning environment and documents what they found to be effective. Within the paper they go on about that their main goal is to teach subjects abstract material and see what types of things in virtual reality would help them accomplish learning the material better.

The three different models they used were to teach underlying electrostatics, entry level physics and molecular structures. Researchers found that “3-D immersive representations can be motivating and can support learning beyond 2-D non-immersive representations” (Salzman). Of their 3 factors they looked for they found that when working in 3-D it offers a much higher quality learning experience compared to their 2-D equivalent. The other factor researchers had a chance to test explained how different ques within virtual reality added or made the learning experience enjoyable. These show that there might be an incentive to having learning lessons in a virtual reality environment.

With this article they go into elaborate detail on using virtual reality to help aid in learning dancing techniques. Participants would perform basic dance moves and have their posture measured then contrasted with the standard postures people would have. With the collected data of their dance moves they would then have a virtual reality equivalent help them to improve their posture to a more correct posture.

This technology greatly helps to teach people correct execution of their skills in practice. Measuring their baseline abilities then curating a program that helps to change their bad habits is highly beneficial to learning. This virtual reality experiment highlights the benefits of the virtual reality software that other forms of learning cannot replicate showing direct benefits to using VR.

Salzman, M. C., Dede, C., Loftin, R. B., & Chen, J. (1999). A Model for Understanding How Virtual Reality Aids Complex Conceptual Learning. *Presence: Teleoperators & Virtual Environments*, *8*(3), 293–316. <https://doi-org.ezproxy2.library.colostate.edu/10.1162/105474699566242>

Xue Yang, & Yin Lyu. (2018). Dance Posture Analysis Based on Virtual Reality Technology and Its Application in Dance Teac. *Educational Sciences: Theory & Practice*, *18*(5), 1224–1235. https://doi-org.ezproxy2.library.colostate.edu/10.12738/estp.2018.5.022