Using Technology to Positively Impact Learning Outcomes in Our Students

David Rosengrant

As scholars we continually use available methods and new equipment to help us better understand the world around us. Physics education researchers are no different. Eye-tracking, though not a new technology has seen an increase in use in the past several years in the physics education community since it provides a unique set of data. Eye-tracking allows a researcher to: follow what a subject focuses on, for how long they focus on it, how their gaze pattern moves between regions of interest, and if desired at times the size of the opening of the pupils. In this talk I will focus on how I have used eye tracking with guided inquiry instruction in large group settings to inform instructional practices. Since learning also occurs with individuals I will highlight what information we can gain from eye tracking assessments. Finally since a key aspect of learning is a motivational hook I will highlight how we can educationally integrate video games into our assessments.