Effect of an Interactive Mobile Game on the Movement in a Queue Line at an Amusement Park

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In amusement parks, almost everything has a line, from entering the park to exiting the park. To eliminate the tedious part of waiting in the line queue, theme park engineers and designers have implemented interactive systems, videos, and themes to immerse guests in their experience. Essential guidelines were created in 2013 for interactive line queue experiences to abide by when designing and creating queues. The inclusion of interactive line queue experiences has been shown to increase positive perception of an amusement ride, even when some patrons do not participate in the experience but instead watch others play. Expectations of guests continue to grow and develop, which included the interactive line experience. This study focuses on the implementation of an interactive system into a queue line in order to eliminate common problems on lines with these interactive systems. The main problems focused on were congestion, park experience, and time perception. Following IRB approval, voluntary participation of children was recruited through the recreation department and a class at Pawling Elementary School. Pre & Post surveys were administered to participants (n=16) both at the roller skating rink in Pawling, NY and online prior to a virtual class rollercoaster. Results illustrated that with the virtual queue, people had believed they had waited longer than predicted, while with the physical queue, people believed that they had waited shorter than predicted. When an ANOVA test was run on the correlation between time perception and estimated time, there was a p-value of 0.072. This shows that by introducing interactive line queues, patrons perceive time waited as less than it is.