

# FRUGGIE: Building Healthy Food Pyramids with Technology

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**Purpose** Obesity is a significant health concern for children in the United States. One way to combat obesity is to start the education and practice of eating healthy at a younger age. This study explored whether an interactive app, designed and programmed on the iOS platform, could provide that education and direction to young children. Fruggie is an educational app designed to test whether children learn and retain the importance of healthy eating by playing this game. Since children spend a significant amount of time playing mobile games, a mobile game that incorporates positive content was designed for this research. **Procedure** Fruggie is a character who is collecting food items from the virtual refrigerator to build a healthy food pyramid, while dodging sugar cubes that are being continuously generated to avoid losing the game. Simultaneously, the players also have to answer health and nutrition related trivia questions to improve their knowledge of a balanced diet. There was an experimental and a control group of children in the age range of 6-10 years in this study. Participating children in the experimental group played this game for two months. Both groups participated in anonymous surveys for data collection. **Conclusion** Results showed that consistently playing Fruggie influenced children's meal choices, increased motivation to build the food pyramid and affinity to fruits and vegetables. There was greater awareness and knowledge of healthy eating. There was also a significant reduction in the consumption of sugar, likely attributed to a key design element of the game.

## **Awards Won:**

American Psychological Association: Third Award of \$500