

**Title of Intervention:** Squire's Quest!

**Intervention Strategies:** Individual Education

**Purpose of the Intervention:** To increase fruit, 100% fruit juice and vegetable intake

**Population:** Fourth grade students

**Setting:** Houston Independent School District, elementary schools; school-based

**Partners:** School districts

**Intervention Description:**

- Individual Education: Squire's Quest! was a nutrition video game based on children's individual preferences and consumption. Squire's Quest! was designed as a ten-session, interactive multimedia game. Each session took about 25 minutes to complete. In the first session, the child committed to becoming a squire in the pursuit of becoming a knight to help the king and queen. The squire had to face challenges in his/her quest. The challenges involved skills and goals related to eating more fruit, 100% fruit juice and vegetables (FJV). The squire prepared FJV recipes in a virtual kitchen to provide energy for the king and court to fight the invaders. A wizard mentored the child through the challenges. Before the end of each session, the child set goals to make the recipe prepared in the virtual kitchen during that session, eat another FJV serving at a meal or snack or to ask for his/her favorite FJV to be more available at home. The children participated in a decision making activity between their favorite fruit, juice or vegetable and a more common snack. The FJV was selected based on the child's food preferences reported at baseline. A problem-solving routine helped the child assess how he/she might change practices to increase the likelihood of reaching goals. All children attained some degree of knighthood at the end of the ten sessions. The level of knighthood was determined by the number of dragon-scale points earned. Points were earned primarily by reaching goals and playing educational games. Examples of the games included identifying what counted as fruit, what counted as vegetables and whether a demonstration of asking would likely result in making FJV more available.

**Theory:** Social Cognitive Theory, Psychoeducational Multimedia Training

**Resources Required:**

- Staff/Volunteers: Not mentioned
- Training: Not mentioned
- Technology: Computers, Squire's Quest! software, food intake recording software system
- Space: Computer stations
- Budget: Not mentioned
- Intervention: Not mentioned
- Evaluation: Computer, software

**Evaluation:**

- Design: Randomized controlled trial
- Methods and Measures:
  - Food Intake Recording Software System assessed FJV intake of four nonconsecutive days

**Outcomes:**

- Short Term Impact: Not measured
- Long Term Impact: Students who played Squire's Quest! increased FJV intake.

**Maintenance:** Not mentioned

**Lessons Learned:** Creating educational games is very expensive, requiring large teams of educational, dietary and behavioral professionals and professional artists and programmers. Periodically, updating the program, based on feedback from children and teachers, could enhance the program but would add to cost.

The possible conversion of this educational technology to the Internet holds out the promise of reaching large numbers of individuals, thereby minimizing marginal cost per new participant.

**Citation(s):**

Baranowski, T., J. Baranowski, et al. (2003). "Squire's Quest! Dietary outcome evaluation of a multimedia game." *Am J Prev Med* 24(1): 52-61.