Engaging Middle and High School Youth in EFNEP by Integrating Technology and Hands-on Activities

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Background

The hands-on EFNEP series is effective for engaging elementary-aged youth. However, this approach is not as effective when working with at-risk middle and high school students. To determine the best strategy for engaging these youth, Maryland EFNEP integrated innovative techniques into the youth lessons. EFNEP adapted lessons from Drexel University’s “APPetite for Health” by integrating medium-level technology, cooking, and physical activities into the lessons. The digital resources included educational YouTube videos, computer-based activities, online surveys and polls, guided Google searches, and digital educational games. To determine which strategy the youth preferred the most, EFNEP implemented three lessons with medium-level technology and two lessons without technology (posters and food models only) in the same series. During the first and last classes, the youth completed a Qualtrics survey to assess their dietary behaviors and rate the activities they enjoyed the most.

Methodology

Partnership/Participants
MD EFNEP Youth Program in Prince George’s County
Middle Schools in Prince George’s County, MD 6th-8th Graders (approximately 30 students)

Outline of Lessons
(Adapted from “APPetite for Health”)
CLASS 1: Building a Healthy Breakfast (Tech)
Technology: Qualtrics (Pre/Video Clips)
CLASS 2: Rainbow of Fruits and Vegetables (Non Tech)
CLASS 3: Fast Food (Tech)
Technology: Computer/Prints for Making Healthier Fast Food Choices (2 Dollar Challenge Video)
CLASS 4: Healthy Snack/Drinks - Reading a Food Label (Non Tech)
CLASS 5: Review Day (Tech)
Exit Survey: Qualtrics (Post)
Technology: Jeopardy Game (all levels); Like Us On Facebook
EFNEP Survey: WebNeers 6th-8th (Post-test)

Assessment Tools
Pre-Post Qualtrics Surveys
Pre/Post 6th-8th EFNEP Youth Surveys

Outcome Indicators
Types of activities they enjoyed the most improvement in behavior practices as a result of increased engagement due to integrated technology

Qualtrics Survey Outcomes
Q7. In the past 7 days, how often did you eat fruit or a vegetable as a snack? (include fresh, canned, frozen, and dried)

Q9. Which activity did you enjoy the most during our classes? Choose all that apply.

Q12. Which did you enjoy more...our classes with technology (video clips and google searches) or without technology (posters, food models)?

WebNeers Outcomes
Middle School Graduation Results:
2017 (No Tech) 2019 (W/ Tech)
Enrolled 25 15
Graduated 15 13
Percent Graduation 60% 87%

Conclusion

- The Qualtrics survey results indicate that the middle school students started eating more fruits and vegetables as snacks and enjoyed the medium-level technology, especially the YouTube videos.
- The physical activities and cooking remained popular with this age group.
- WebNeers survey results show that as a consequence of blending technology and hands-on activities, the middle school students positively improved their behaviors from pre-to-post intervention by reducing their sugary drink consumption, making healthier choices when eating out, being more physically active, and improving food safety practices.
- The data shows that integrating technology into the EFNEP curriculum improved engagement and graduation rates of middle school students.
- These blended classes are being conducted with both middle and high school students.