Children Fight BAC!

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Overview

- Funded by CSREES – 3 years
- Partners:
  - Utah State University
  - Partnership for Food Safety Education
  - Safe Food Institute
  - LetterPress Software
Science of Instruction

PROBLEM

INTEGRATION

APPLICATION

ACTIVATION

DEMONSTRATION
Science of Instruction

- Instruction
- Coaching
- Feedback
- Humor
- Animated flash tutorials, quizzes and simulations

[Image: Children Fight BAC!]
Research Process

- Identify learning goals and objectives
  - **Goal:** Students thaw foods properly using the refrigerator, cold water, or the microwave
  - **Learning Objectives - Learners will be able to:**
    - Define the purpose for thawing foods using the refrigerator, cold running water, or the microwave - to minimize the growth of pathogens within raw and ready-to-eat foods.
    - Demonstrate the correct procedures for thawing foods using the refrigerator, cold water (change water every ½ hour), or the microwave (cook right away).
Research Process

- Audience analysis
# Instructional Modules

**Children Fight BAC! modules:**

| Microorganisms, Pathogens, and Foodborne Illness | Separate |
| Shop and Store | Chill and Separate |
| Clean and Prepare | Clean |
| Cook and Reheat | Cook |

**Teach Fight BAC!™ recommendations:**

[www.fightbac.org](http://www.fightbac.org)
Instructional Modules

- Each module features:
  - Lessons
  - Activities to apply knowledge
  - Humor
  - Offline activities
Instructional Modules

- Example of lesson
- Example of activity
Classroom Evaluation

- Technology, Life, and Careers classes
- 130 students participated
- 6 classes
  - 3 teacher-led
  - 3 student-led
What is a foodborne illness (food poisoning)?
- The flu
- When you feel very, very hungry
- When a person becomes sick because of the food they ate
- When a person has a cough and a runny nose

What causes foodborne illness (food poisoning)?
- Rotten food
- Pathogens (germs)
- Food that is dropped on the floor and then eaten
- Food that tastes bad
Classroom Evaluation: Pre-Food Handling Observation

- Handwashing
Classroom Evaluation

- Evaluated software for functionality and instructional capability
  - Usability
  - Functionality
  - Attention Gaining
  - Attention Maintenance
  - Educational Value
Post Instruction: Test Results

- No difference in test scores when comparing teacher-led and student-led learning
- Pre-test – 59%
- Post-test – 90%
- One-month post-test – 83%
- This represents an 24% increase in retained food safety knowledge
Prior to the instruction, students washed their hands before preparing food for approximately 15 seconds.

After the instruction, students washed their hands for approximately 26 seconds before handling food.

This represents an 80% increase in observed handwashing time.
Evaluation: Conclusions

- Children Fight BAC!™ is an effective food safety instruction program for 6th grade students to increase their food safety knowledge and improve their food handling practices.
- Children Fight BAC!™ can be used for teacher-led or student-led instruction.
Teacher/ Leader Guides

- Connect to state curriculum standards to encourage adoption into classroom curriculums
State Curriculum Standards

- Utah
- Utah Health Education – 6
  Standard 4: The students will understand concepts related to health promotion and disease prevention (Objective 1).
- Utah Technology, Life and Careers - 7
  Standard 3: The student will develop basic skills related to family and consumer sciences and skills necessary to enhance independence and a positive self-concept (Objective 3-3).
Teacher/Leader Guide

- Suggestions for implementation
  - Learning objectives
  - Preparation
  - Learning activities
  - Summary discussion questions
  - Homework activities
Awards

- 2004 Education Software Review Award (EDDIE) - Health
- 2004 AEP Distinguished Achievement Award Finalist - Science
- 2005 AEP Distinguished Achievement Award Winner - Science
- 2005 AEP Distinguished Achievement Award Finalist - Most Innovative Software
- 2005 Best Educational Software Award (BESSIE) - Health
Dissemination

- Sold as curriculum
“Children Fight BAC is superb! With the limited time I have, it is ideal. It provides comprehensive food safety education presented in a way that kids remember. My students have a lot of fun with it; they laugh out loud”.

Cathryn Davies