



Health Promotion for Children: Multimedia Music Program

Grant Number: R44CA75465-02

Abbreviated Abstract

The long-term goal of this research is to promote healthy lifestyles and cancer risk reduction behavior through broad dissemination of music-oriented, interactive, multimedia programs for children. The research consists of an alpha test of the products designed and developed from Phase I findings, using randomly selected groups of children (from kindergarten through fourth grade) representing diverse socioeconomic backgrounds. Throughout alpha testing, experts from oncology, music, child development and programming, education, psychology, and multimedia technology will review, revise, and evaluate the integrity of the product(s). Upon completion of the data analysis, both qualitative and quantitative beta testing will commence. During this testing, entire classrooms of children in grades kindergarten through fourth grade will use products produced in Phase II from the Phase I prototype design determination. Throughout alpha and beta testing, formative program and product evaluations will be conducted using a modification of Stufflebeam's CIPP model. Additionally, the Predisposing, Reinforcing, and Enabling Constructs in Educational/Environmental Diagnosis and Evaluation (PRECEDE) model will be employed to determine changes in students' knowledge, attitudes, and beliefs. Instruments will be created in concert with the performance indicators of the National Health Education Standards for Comprehensive School Health Education curriculum. At the end of Phase II, these products will be ready for commercial distribution.

Primary Investigator

Mari-Lynn C. Evans, B.A., Evening Star Productions, 219 Overwood Road, Akron, OH 44313

Phone: (330) 867-7443

Fax: (330) 867-7468

E-mail: mlevansesp@aol.com

Research Team & Affiliations

Evening Star Productions

Ms. Mari-Lynn C. Evans, Principal Investigator

Dr. William W. Wolfe, Sr. Director of Research

Total Budget

\$1,069,672

Research Objectives

AIMS

1. Construct a working "alpha level" prototype that incorporates the content and technical specifications resulting from the Phase I analyses.
2. Conduct a functional evaluation of the alpha prototype.
3. Modify the alpha system to form the design for an expanded beta prototype.
4. Conduct a full-scale functional evaluation of the beta prototype using a focus group approach.
5. Refine the beta prototype to form the design for final product development and produce the final multimedia product(s).



6. Develop and conduct a program effectiveness evaluation using student, teacher, and parent focus groups in the schools.

Theory/Hypothesis

According to present rates, approximately 30 percent (76 million) of all Americans will develop cancer sometime in their lifetime. While cancer has been identified as the second most common cause of death, many cancers can be prevented by choosing a healthy lifestyle. Almost 80 percent of the deaths caused by cancer are related to one's behavior and lifestyle (American Cancer Society 1996), which means that we can reduce cancer morbidity and mortality through the promotion of healthy lifestyles and cancer risk reduction.

Experimental Design

Nine focus groups composed of children, school professionals, and parents were held in northeast and northwest Ohio. Three different school settings were represented: urban, suburban, and rural. Second- and fourth-graders participated from the urban and suburban schools. Second-, third-, fourth-, and sixth-graders participated from the rural schools. Also participating were various teachers and parent representatives from the schools involved.

Final Sample Size & Study Demographics

Students:

Rural:	Grade 2	Grade 3	Grade 4	Grade 4	Grade 6
	15 boys	11 boys	9 boys	12 boys	12 boys
	7 girls	11 girls	15 girls	10 girls	11 girls

Suburban:	Grade 2	Grade 4
	11 boys	8 boys
	7 girls	8 girls

Urban:	Grade 2	Grade 4
	14 boys	12 boys
	11 girls	10 girls

Teachers: 10 representing each grade level above (all female)

School Nurse: 1 from the urban school

Counselor: 1 from the suburban school

Health Educators: 2 (1 urban and 1 suburban)

Parents: 16 mothers and 3 fathers

Data Collection Methods

Structured questionnaires

Outcome Measures

The goal of the evaluation was not just to collect information on what occurred but to analyze the information gathered from both an education and an edutainment point of view. The remaining structured questions were designed to ascertain when, where, and with whom the groups thought the program should be viewed.

Evaluation Methods

A modified version of Stufflebeam's CIPP model was used as a formative evaluation tool in the two general areas of pedagogical accuracy and technical soundness. The CIPP perspective, as updated by Stufflebeam and Shinkfeld (1985), defines the major purpose of evaluation as



providing useful information for decisionmaking. Thus, the CIPP model became the process for delineating, obtaining, and providing information to judge program successes and alternatives.

Within the CIPP model, four evaluations may be conducted independently or in an integrated sequence: (1) context evaluation, (2) input evaluation, (3) process evaluation, and (4) product evaluation.

Specifically from the **Context** point of view, we looked for strengths and weaknesses of the program in relationship to the target audience and attempted to ascertain what improvements needed to be made. The objective was to assess the program's overall status and to identify any problem(s) that was not within our control that might limit the success of the program. Quite simply, this part of the evaluation looked at what the students, teachers, and parents liked and disliked—what "students" learned from watching the program, who their favorite and least favorite character(s) was, and why. The major focus of the **Input** evaluation was searching out and identifying any barriers or constraints in the user's environment that might influence or impede the operation of the program.

Research Results

- The students were able to demonstrate that they understood the concepts of self-esteem, problem solving for prevention, and knowledge of the dangerous relationship between the skin and sun exposure to help in decisionmaking.
- Teachers and other school professionals indicated that the program would appeal to kindergarten through fourth-grade students and that a program for elementary students like this was sadly overdue. They liked the idea that the Geezbo character was available to guide the students as they watched.
- Parents indicated that the program would appeal to kindergarten through fourth-grade students but that it may be too young for the fourth-graders.

Barriers & Solutions

Product(s) Developed from This Research

Geezbo's Alley: Pilot television program, Web site, 20-minute video programs, CD-ROM interactive educational game, interactive learning kiosk