TEACHING HEALTHY LIVING A-Z: AN EXAMINATION OF OKLAHOMA STATE UNIVERSITY EXTENSION EDUCATORS FAMILY AND CONSUMER SCIENCES NUTRITION, HEALTH AND WELLNESS IMPACT TEAM MEMBERS' TECHNIQUES, AUDIENCES, SUCCESSES AND CHALLENGES

By

MARLENE SUE BUCK

Bachelor of Science Oklahoma State University Stillwater, Oklahoma 1971

Submitted to the Faculty of the Graduate College of the Oklahoma State University in partial fulfillment of the requirements for the Degree of MASTER OF SCIENCE

May, 2004

TEACHING HEALTHY LIVING A-Z: AN EXAMINATION

OF OKLAHOMA STATE UNIVERSITY EXTENSION

EDUCATORS FAMILY AND CONSUMER

SCIENCES NUTRITION, HEALTH AND

WELLNESS IMPACT TEAM MEMBERS'

TECHNIQUES, AUDIENCES,

SUCCESSES AND

CHALLENGES

Thesis App	proval
	Mulifas
	Thesis Advisor
Bari	Gara & Brown
	anes P. Key
	Sefed Parloys
	Dean of the Graduate Jollege

ACKNOWLEDGEMENTS

I am indebted to many individuals for their help and support toward the completion of this study and my degree. It is very humbling to realize how much I have relied upon these people for the successful achievement of my project.

First, I acknowledge the late Dr. James White, without whom my Masters Degree journey would have ended after only three hours of Research Methods from the University of Nebraska, Lincoln. Upon learning that the Masters Degree requirement was eased by new leadership, I washed my hands of the whole idea. Who needs this stress, anyway?! However, while taking his 4-H Volunteer Development class, for an optional three hours credit, he gently urged me to continue, volunteering to be my advisor and assuring me that he had helped many Extension educators along the way to their Masters. Gradually I followed his lead, gaining momentum and hours. To Dr. White I am grateful for encouragement and for an example of determination in the face of unimaginable adversity.

I have been privileged to work daily with two top-notch Extension employees,
Scott Price and Beth Peters. Over the months and years they have both encouraged me,
listen to me whine, and tolerated my absences without complaint. When class time took
priority over 4-H events (I did not dare miss statistics class!!) Scott took my place
without a hint of resentment or frustration. Beth, with her unfailing cheerfulness, made
sure I was covered, from news releases and reminder cards, to 4-H requests and food
preservation questions. They made Grant County Extension a wonderful place to work.

One reason I chose to be on the Nutrition, Health and Wellness Impact Team was our excellent District and State Specialists. The Northwest District is very fortunate to

have Recia Garcia. Her experience and work ethic are indisputable. State Specialist Barbara Brown is a corner stone for our Impact Team. As one participant commented on the survey, "Healthy Living A-Z has wonderful curriculum and Barbara Brown does not receive near enough credit for how much she puts into it." Janice Hermann also plays an important role in evaluating this program. To each of these individuals I owe much, for without them my study and my programs would suffer immeasurably.

Sometimes I feel like a middle-aged OSU cheerleader declaring, "My team is Number One!!" While I understand that the Family Resiliency and Family Economic Wellbeing Impact Teams are also great, (and I am certainly not suggesting a competitiveness), I feel very grateful and proud to be on this Nutrition, Health and Wellness Impact Team. We are a TEAM, and care for and support each other. How else could I obtain a 100 percent return rate on my survey, which was conducted during the Thanksgiving and Christmas holiday period at a time of general Extension upheaval? Great teamwork.

I will always be grateful to Charles Cox for volunteering to be my thesis advisor.

I contacted him relentlessly with questions and requests for help. I appreciate Charles for his patience, willingness, and unruffled attitude. He calmed my fears, let me know I could get the job done, then gently guided me in the right direction.

Dr. James Key replaced Dr. White in the classroom when illness took him to Houston. Dr. Key is a pillar of caring – for his friend Dr. White and for all his adopted students. I appreciate Dr. Key for his advice and willingness to help during my impromptu calls.

My family is the greatest and I could never express my gratitude adequately. My parents, Lyle and Doris Schanbacher, provided me with a firm foundation of love and encouragement that allowed me the confidence and freedom to stretch far beyond my "comfort zone". I continue to look to them for answers to both simple and complex questions as well as role models for my own life. When a Masters Degree became optional, my husband Jim said, "Whatever you want to do, it's your choice. I'll support you either way." He has never faltered, never complained. Countless times he altered his own plans, adjusted his wants and needs to my wants and needs. He never showed resentment or frustration, just love, support and encouragement, without which I openly confess I would have failed. My three greatest accomplishments, daughters Chris, Angie, and Jamie, also supported and encouraged me in a hundred different ways. From their outrageous sense of humor, to Jamie's providing a place to stay one night a week – even when class fell on Thursday evening - to calming panic over statistics class, I could always depend on them to come through. To my family I earnestly say, "I love you, I need you, I appreciate you." I always will.

Leaving the greatest to last, my God and Savior. I can do all things through Christ who strengthens me. Philippians 4:13

Table of Contents

Chapter	Page
1. INTRODUCTION	
Background of Problem	
Statement of the Problem	
Purpose of the Study	
Objectives of the Study	
Assumptions of the Study	
Scope and Limitations of the Study	
Definitions of Terms	
2. REVIEW OF LITERATURE	8
Background	8
Health Issues: Children	9
Health Issues: Adults	11
Nutrition Education and Promotion	14
Summary	19
3. PROCEDURES	20
Design of the Study	
Population	
Instrument Description and Development	21
Data Gathering Procedures	22
Data Analysis Techniques and Statistics	23
4. FINDINGS	24
Demographic Data and Return Percentage	
Results of Survey	
Section 1: Teaching Techniques	25
Section 2: Audiences	
Section 3: Successes	36
Section 4: Challenges	41
Additional Comments	
Summary of Findings	51
Section 1: Teaching Techniques	51
Section 2: Audiences	
Section 3: Successes	
Section 4: Challenges	54

5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	56
Introduction	
Problem	
Purpose	
Objectives	
Summary of Major Findings	
Conclusions	
Recommendations	
Follow Up	
BIBLIOGRAPHY	72
APPENDIXES	75
APPENDIX A—IRB FORM	75
APPENDIX B—COVER LETTER AND SURVEY	77

LIST OF TABLES

Γable	Pa	age
1.	Teaching Methods Used by Impact Team Members	26
2.	Impact Team Members' Teaching Methods of Choice	26
3.	Impact Team Members Incorporating a Tasting Session in One or More Presentation	27
4.	Impact Team Members Incorporating a Full Meal in One or More Presentations.	27
5.	Lessons Taught	28
6.	Impact Team Members Creating a Recipe Booklet Using Recipes from One or More of the Lessons	
7.	Impact Team Members Who Have Worked with Fellow Impact Team Member to Co-Present One of More Lessons	
8.	Impact Team Members Who Have Worked with Educators Not on the Nutritio Health and Wellness Impact Team to Co-Present One or More Lessons	-
9.	Impact Team Members Who Have Worked with Persons Not Associated with Extension to Co-Present One or More Lessons	31
10.	Impact Team Members Who Typically Presented Lessons in a Series of Three More Separate Sessions	
11.	Impact Team Members' Use of Provided Evaluation Component	32
12.	Audiences Reached by Impact Team Members with Healthy Living A-Z	33
13.	Methods Used to Promote Healthy Living A-Z Presentations	34
14.	Primary Audiences	35
15.	Primary Audience Ages	35
16.	Favorite Lessons to Present	37
17.	Lessons Received with the Most Enthusiasm	39

18.	Largest Single Audience Reached	40
19.	Time(s) of Day Usually Drawing the Largest Audience	41
20.	Impact Team Members' Least Favorite Lessons to Present	42
21.	Lessons Received with the Least Enthusiasm	43
22.	Lesson Impact Team Members Are Not Sure They Will Ever Try to Present	44
23.	Funding Sources for Healthy Living A-Z Presentation	46
24.	Locations for Presentations	47
25.	Difficulty of Obtaining Adequate Equipment for Program Presentation	48
26.	Difficulty of Obtaining Adequate facilities for Program Presentation	49
27.	A Listing of Educator Comments	50

LIST OF FIGURES

Figure	Page
Average Percentage of Student Retention of Instruction 24 Hours After Bei with Various Teaching Methods	ng Taught 15
2. Counties Represented in the Study	21
3. Counties Represented in the Study	24
LIST OF GRAPHS	
Graph	Page
1 Percent of Cancer Deaths Attributed to Various Factors	12

CHAPTER 1

INTRODUCTION

Background of Problem

Nutrition-related health problems abound in the United State of America. In fact, we are currently experiencing vast health crises due in large to improper nutrition and poor lifestyle choices in all age groups.

Nation-wide, adult obesity is estimated at 30 percent. Approximately 15 percent of children and teenagers age six to nineteen are overweight, tripling the rate of 1980. Over ten percent of children age two to five are overweight, up from seven percent as recent as 1994. In our own state of Oklahoma, approximately 56 percent of adults are overweight and 21.9 percent are obese, while the proportion of overweight children has followed the national trend, tripling since 1980 (Siewe, 2003).

Some of the other major nutrition-related health problems are cancer, coronary heart disease, and diabetes. One must wonder: If these conditions can be prevented, improved or corrected through diet and lifestyle choices, why are they so prevalent, even to the point of epidemic? Do individuals truly comprehend the correlation between their nutritional intake and their health? If individuals do understand this correlation do they have the information and support they need to make positive changes in order to improve their health?

There are currently 25 Nutrition, Health and Wellness Impact Team members (including the researcher) serving at the county level. These Extension Educators are equipped with the educational background and training, state and district specialist

support, and curriculum to make a positive difference in the health of their county's clientele. Impact team members realize that improved nutrition can lead to improved health, which can lead to an improved quality of life.

Knowledge truly is power. With nutrition-related health issues identified as a need by Oklahoma State University Cooperative Extension Family and Consumer Sciences Educators and their State and District Specialists, the Nutrition, Health and Wellness Base Program focuses on improving the nutrition, health and quality of life of Oklahoma residents through nutrition education and support. "Healthy Living A-Z" is the curriculum provided to and used by impact team members toward this end.

In the course of teaching Healthy Living A-Z, team members develop their own unique teaching techniques, reach various audiences, and experience diverse successes and challenges, gradually learning what works well. It is with the belief that educators can learn from each other that prompted this research. Although situations are unique, they also share similarities. One team member may have discovered a solution to a problem that another team member can use.

The Nutrition, Health and Wellness Impact Team enjoys top-level support from its specialists, is supplemented regularly with updated materials and trainings, and is supplied with a vast and current curriculum. However, learning from fellow team members can be an additional valuable resource.

Statement of the Problem

Oklahoma State University Nutrition, Health and Wellness Impact Team members all use the Healthy Living A-Z curriculum. During the course of teaching from

this curriculum, team members develop their own individual teaching techniques, reach various audiences, and experience a variety of successes and challenges.

Impact team members are individuals who work in different environments, yet they share many similarities. Solutions to problems discovered by one can frequently be used by others—but only if those solutions are shared.

By examining the teaching techniques, audiences, successes and challenges of impact team members across the state of Oklahoma, numerous questions might be answered. A few examples of these questions are:

- Which Healthy Living A-Z lessons are taught most often?
- Which are the least used lessons?
- What are the largest audiences reached?
- How are presentations promoted?
- Do team members work with others to co-present lessons?
- At what locations are sessions generally held?
- What is the best time of day for a Healthy Living A-Z presentation?
- How are sessions funded?
- Which lessons did the participants like most?
- Is the evaluation component used regularly?
- Are obtaining facilities or equipment a problem?

Therefore, the problem leading to this study is the lack of a body of knowledge holding the answers to the following questions:

• What are the teaching techniques used by Nutrition, Health and Wellness Impact Team members to teach the Healthy Living A-Z curriculum?

- What audiences are reached by the Nutrition, Health and Wellness Impact
 Team members?
- What are some of the successes accomplished by the Nutrition, Health and
 Wellness Impact Team members as they teach Healthy Living A-Z?
- What are some of the challenges met by the Nutrition, Health and Wellness
 Impact Team members as they teach Healthy Living A-Z?

Purpose of the Study

The purpose of this study was to determine the techniques, audiences, successes, and challenges of Oklahoma State University Family and Consumer Sciences Nutrition, Health and Wellness Impact Team members as they taught from the Healthy Living A-Z curriculum and to provide feedback for program evaluation to the Impact Team.

Objectives of the Study

The objectives of this study include:

- To determine the teaching techniques used by Oklahoma State University Family
 and Consumer Sciences Extension Educators on the Nutrition, Health and
 Wellness Impact team as they teach from the Healthy Living A-Z curriculum.
- To determine the audiences reached by Oklahoma State University Family and Consumer Sciences Extension Educators on the Nutrition, Health and Wellness Impact Team as they teach from the Healthy Living A-Z curriculum.

- 3. To determine the successes accomplished by Oklahoma State University Family and Consumer Sciences Extension Educators on the Nutrition, Health and Wellness Impact Team as they teach from the Healthy Living A-Z curriculum.
- 4. To determine the challenges met by Oklahoma State University Family and Consumer Sciences Extension Educators on the Nutrition, Health and Wellness Impact Team as they teach from the Healthy Living A-Z curriculum.

Assumptions of the Study

Assumptions made concerning this study include:

- Impact Team members desire to contribute positively to the results of the study.
- Impact Team members are conscientious and honest in their responses.
- Impact Team members recall accurately and adequately so as to complete the survey correctly.

Scope and Limitations of the Study

The scope of this study included Oklahoma State University Family and Consumer Science Educators on the Nutrition, Health and Wellness Impact Team as they taught from the Healthy Living A-Z curriculum from its beginning in 1999 to the present time.

The population was limited to those Oklahoma Cooperative Extension Service

Nutrition, Health and Wellness Impact Team members employed at the time of the study.

Although the researcher was a member of the impact team at that time, to avoid the risk of bias she did not complete a survey.

Definitions of Terms

Definitions relevant to the comprehension of this study include:

- Extension Educator: Individual who works for Oklahoma State University
 Cooperative Extension Service on the county level, bringing research-based information to the residents of his or her respective county. Extension Educators may be Agriculture, Family and Consumer Sciences, or 4-H Youth Development.
- FCCLA: Family, Career and Community Leaders of America, a national career and technical student organization for young men and women in family and consumer sciences.
- FCS: Family and Consumer Sciences, one of four program areas within Cooperative Extension. The other three are Agriculture, 4-H Youth Development, and Rural Development.
- Healthy Living A to Z: A curriculum used by FCS Educators to teach Nutrition, Health and Wellness.
- Impact Program: A major program highlighted for a four-to-six-year planning period. Extension Educators make a commitment to implement specific program components and evaluate them for specific behavioral outcomes in participants each year of the programming cycle, and to develop programming strength and expertise in the base program from which the impact program comes. State Extension faculty commit to develop educational materials and provide in-service

education to enhance program knowledge and skills as well as the specific knowledge and skills to implement and evaluate the outcomes of the designated impact program (Harriman, 2004).

- Impact Team: A group of educators who have chosen to focus on a particular base program.
- Nutrition, Health and Wellness: One of the four base programs within the scope of Family and Consumer Sciences, the others being 4-H Youth Development,
 Family Resiliency, and Family Economic Wellbeing.
- OHCE: Oklahoma Home and Community Education, an organization whose
 mission is to strengthen individuals, families, and communities through education,
 leadership development and action, in cooperation with the affiliated state, county
 and local groups.

CHAPTER 2

REVIEW OF LITERATURE

Background

Thanks to Justin Morrill and the Morrill Acts of 1862 and 1890 our country is dotted with land grant universities, providing "on-campus" teaching of millions of higher education students. Indeed, Justin Morrill is remembered for his efforts to provide federally supported education to the common people and to ensure that emancipated slaves would have access to the same education as others (Astroth, 2000). The Hatch Act of 1887 operationalized the research component to these universities, providing research-based information, the backbone of reliability. Later, the Smith-Lever Act of 1914 extended the teaching and research activities of the land-grant institutions into their states' surrounding communities with the creation of the Extension Service (Norland, 1990).

Because of these acts, each of the 77 counties within the state of Oklahoma has an Oklahoma State University Cooperative Extension Service office within its boundary (Oklahoma State University Personnel Directory, 2003). Professional staff members within the county offices are called Extension Educators. Their programs areas include Agriculture, Family and Consumer Sciences, 4-H Youth Development and Rural Development.

State and district specialists along with county Extension educators, utilizing input from county and district Program Advisory Committees and national initiatives, determine how best to meet the needs of the state's residents in each base program area.

"Healthy Living A-Z" was the resulting curriculum for members of the Nutrition, Health and Wellness Impact Team.

The concept of nutrition education is not new for Extension educators.

Connections between what people ate and their general state of health were formulated at some point long before this researcher was born. An awareness of the relationship between diet and health is increasing in America today. For example, the Department of Health and Human Services reported that as early as 1986, 63% of American adults were trying to reduce or eliminate dietary salt (Lenichek, Anderson, and Tichenor, 1986).

Today, nutrition education is considered of vital importance by many individuals and agencies in the effort to assure optimal health and the highest quality of life possible for people of all ages and nationalities.

Health Issues: Children

Nutrition-related health problems abound. In the United State of America we are dealing with numerous health crises. Approximately one of every four children is overweight, putting them at risk of serious health, economic and quality of life consequences. Poor eating habits and lack of physical activity together may be exacerbating the trend toward increasing obesity (Stang, 1998). Children across the U.S. are failing to make the grade when it comes to fitness and nutrition. Some experts say children's lack of exercise, and the excess of junk food in their diets, may negatively affect their academic performance (Willi, 2003).

Due to video games, computers, and television, children have become more sedentary than ever before. Nine million American children aged six to nineteen are

overweight, triple the number of twenty years ago, according to the Center for Disease Control and Prevention. Approximately 33 percent of children watch three hours or more television daily; much of that time involves watching about 10,000 commercials for junk food a year, according to researchers at Yale University (Willi, 2003).

Nationwide surveys indicate that children are generally doing poorly in meeting the Dietary Guidelines for Americans. (Harriman, 2003) Only two percent of American youth eat the recommended daily requirements for all five major food groups. It's no wonder we are in danger of raising a generation of "super-sized" youth (Willi, 2003). "The kids aren't the problem, it's what we're modeling for them that's the problem," according to Dr. Mary Story, professor of Public Health Nutrition at the University of Minnesota. "Americans are eating more on the run. They're serving less fruits and vegetables at home and eating more at fast food restaurants. They're having fewer family meals and eating more convenience foods" (Willi, 2003).

Compounding the health and fitness crisis among American youth are schools. Many have installed vending and soda machines to help close their budget gaps. While school lunches are generally healthier than they were ten years ago, many children head straight for the calorie-laden food items or snack vending machines. This problem is exacerbated by schools increasingly cutting back on physical education and recess time in favor of academics (Willi, 2003).

Type II Diabetes, once labeled Adult Onset Diabetes, is now occurring more often in children and at younger ages. In 1990 only four percent of the newly-diagnosed cases of Type II Diabetes was attributed to obesity; by 2000 that percent rose to 20 percent.

Attributed to poor nutrition and a sedentary lifestyle, the rate of Type II Diabetes in

children will only continue to rise as long as obesity and inactivity are major factors (Willi, 2003).

Health Issues: Adults

While we grapple with health crises in the younger generation, adults are confronting many of the same problems, plus many that are age-related. Among diseases feared the world over are those involving the heart and blood vessels, called "Cardiovascular Diseases" (CVD). Heart or coronary artery disease is a form of CVD that accounts for more deaths in the US than cancer, unintentional injuries, and other diseases combined (Siewe, 2001). Coronary heart disease remains the leading cause of death in the United States, despite decreases in coronary heart disease mortality over the past few decades (Anderson, Nixon, and Woodard, 1998).

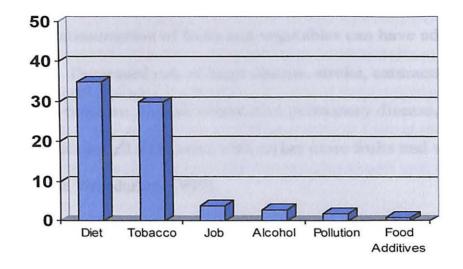
Type II Diabetes in adults is nothing short of epidemic. This common condition results in an increase of blood sugar level and the body's inability to use glucose for energy (Siewe, 2001). Diabetes frequently results in a myriad of health problems, even death. Successful diabetes management requires a dedication to a balance of three factors: diabetic diet, exercise, and medication (if needed) (Hermann, 1996).

The many forms of cancer are still among adults' most prevalent fears. Cancer can shorten lives, wreck homes, inflict physical, mental and emotional pain, collapse family economics, and destroy quality of life. In recent years, a relationship between the occurrence of cancer and the condition of nutritional support has been confirmed.

According to the American Institute for Cancer Research, the following graph illustrates the percentages of cancer deaths attributed to various factors:

Graph 1

<u>Percent of Cancer Deaths Attributed to Various Factors</u> (American Institute for Cancer Research, 2000)



Research (2000) recommends no more than one third of the plate be filled with cheese (natural, lowfat), milk (skim), yogurt, and meat, poultry and seafood from the meats and dairy portions of the Food Guide Pyramid. Two thirds of this recommended plate should be filled with fruits, vegetables, whole grains, beans, nuts, and/or peanut butter.

A large volume of epidemiologic evidence has indicated that fruits and vegetables are protective against numerous forms of cancer. While it is still unclear exactly what substances within certain fruits and vegetables are responsible for their cancer protection or how that protection occurs, many studies have shown an inverse association between intake of fruits and vegetables and the risk of cancer of the colon, breast, and stomach (Temple and Gladwin, 2003). Men are at a higher risk of prostate cancer if they are obese and/or have a diet high in fat and low in vegetables and fruits. (American Institute for Cancer Research, 2000). It is reported that a mostly plant-based diet, avoidance of

alcohol, maintenance of a healthy weight and regular physical activity could reduce the incidence of breast cancer by 33 to 50 percent (American Institute for Cancer Research, 2000).

Indeed, increased consumption of fruits and vegetables can have additional positive effects on health. Decreased risk of heart disease, stroke, cataracts, diverticulosis, high blood pressure, chronic obstructive pulmonary disease, asthma, bronchitis, and osteoporosis are all associated with eating more fruits and vegetables (Produce for Better Health Foundation, 1999).

Tuttle's (2001) study showed that although awareness of the Food Guide Pyramid and the Dietary Guidelines appears to be high among consumers, greater emphasis needs to be placed on conveying the content of these useful tools and helping people to apply them to their own eating behaviors. To further emphasis the importance of appropriate nutritional intake, the American Heart Association, the Committee on Diet, Nutrition, and Cancer of the National Research Council/National Academy of Sciences, the American Cancer Society, and the National Cancer Institute all recommend that the general population, including children, consume a diet containing no more than 30-35% of fat to reduce the incidence of heart disease and cancer (Lenick et al, 1986).

Limited resource families face additional issues. They have less money available for food expenses and are at further risk of nutrition-related health problems. Their needs also include a reduction in the level of food insecurity as well as improvement of their nutritional health (Lucia, Kunkel, and Cason, 2003).

Nutrition Education and Promotion

Labonte (1993) defined health promotion as "any activity or program designed to improve social and environmental living conditions such that a person's experience of wellbeing is increased." In 1986, The World Health Organization defined health promotion as enabling people to increase control over, and to improve their health. Extension educators are in a unique position to enable people to look at the "big picture" of health, especially the factors influencing overall population health and wellbeing (Gillis and English, 2001).

With experience, each educator tends to develop his or her own preferred teaching techniques. As educators, one key to effective delivery is to know the audience (Rodewald, 2001). Obviously, one would use a different approach to teaching nutrition to a large classroom of active third-graders than to teaching a small group of elderly diabetics.

However, several effective teaching and learning styles have been established that can benefit any educator. The Learning Pyramid (Cooper, 2003) is one such tool.

According to the Learning Pyramid model, students—of all ages—learn best by teaching others and learn the least through lecture. The following pyramid illustrates student retention.

Average Percentage of Student Retention of Instruction 24 Hours After Being Taught with Various Teaching Methods

Lecture 5%					
Reading	10%				
Audiovisual	20%				
Demonstration	30%				
Discussion Group	50	<u>%</u>			
Practice by Doing		<u>75%</u>			
Teach Others/Immediate Use of	Learning	90%			

To make certain that all students are gaining knowledge and experience it is important to make presentations as interactive as possible, providing ways for students to share their knowledge, raise questions, try new ideas, get feedback from their classmates, and hear other points of view. Active involvement encourages learning; however, individual assignments are also important (Burns, 2003).

The "Best Practices Checklist" (Cooper, 2003) lists seven practices that educators have learned are most conducive to successful teaching and learning. Learning is most effective when it is:

- Student Centered: The students' interests and concerns are taken into account when planning lessons.
- Experiential: Students learn more by doing than by any other method.
- Holistic: Thematic units of study build greater overall understanding and appreciation.

- Authentic: Lessons should not be oversimplified. Students have the ability to learn on deep levels.
- Expressive: Opportunities are given for students to express their thought and ideas.
- Reflective: There is time set aside for students to consider what they have learned, how they learned, and how it applies to what they already know.
- Collaborative: In all grade levels, cooperative social relationships can be a powerful aid to learning.

Several studies on Extension classes showed that demonstrations, videos, handouts, and hands-on experiences were preferred teaching methods (Konen and Horton, 2000). A separate study conducted in Ohio provided evidence that, despite the advances in communication technology over the past several decades, printed information sources remain the most preferred delivery systems for many Extension and state agency professionals. This may seem surprising due to the high demand for presentations and workshops. This finding also seems to contradict evidence that experiential, or hands-on, opportunities are the best approaches to learning (Rodewald, 2001). However, handouts remain important teaching tools for most Extension educators, providing written references to take home, for later use.

No individual or agency can be all things to all people; therefore networking is a vital ingredient in many successful Extension education programs. Many agencies and organizations share similar goals, such as targeted audiences and improving standards of health and family economics (Couchman, Williams, and Cadwalader, 1994). No single organization has what it takes to do it all. Extension educators who partner with agencies

that share goals will enjoy added benefits and improve the quality of their programs as well as the ease at which they are presented. When each individual and agency does what they do naturally, it is not viewed as extra work (Bairstow, Berry, and Driscoll, 2002).

According to Chen (2001) Extension educators should be proactive in working with agencies to provide social access, especially in rural areas, to the elderly. Partnering with senior centers, senior groups, community coalitions, and senior housing to offer programs can help older people be more actively engaged in their own lives.

To begin an effective partnership, partners should ask themselves the following questions (Gillespie, Gantner, Craig, Dischner, and Lansing, 2003):

- What is it that we can do together that we could not do alone?
- What is already happening on which we can build?
- What community networks exist with which we work?
- What do we expect of one another, the partnership, ourselves within the partnership?

Suggested strategies for effective partnering include (Gillespie et al, 2003):

- Agree on common goals and indicators.
- Clarify roles and responsibilities.
- Develop protocols.
- Commit necessary resources.
- Create a flexible trusting atmosphere.
- Continually assess.

Networking can involve individuals or agencies and can be on the local, county, state or national level. Mississippi's Partners for Improved Nutrition and Health (PINAH), established in 1987, is a collaborative project between the Mississippi Cooperative Extension Service, the Mississippi State Department of Health and the Freedom From Hunger Foundation and serves, among other things, as an incubator of innovative health promotion initiatives (Hinton, and Rausa, 1992).

Networking with clientele who are part of an advisory committee adds a new dimension to involvement and learning. When community members are involved in the planning, design, implementation, and evaluation of a program, there is increased belief that they can take control over their own health (Gillis and English, 2001).

Depending on the presenter, audience, topic, and situation, programs can be presented as a single session or as a series of two or more sessions. For example, the Washington State University Cooperative Extension Family Nutrition Program provides educational programs for Hispanic Food Stamp recipients as one- to two-hour classes once each week for six weeks (Meloy, 1998). Educators have observed that a series of sessions provides important opportunities for socialization and repetition, both of which contribute to learning and adapting. In addition, nutrition education programs for food stamp recipients have proved to be very cost effective. For example, the free Expanded Food and Nutrition Education Program, EFNEP, in Virginia found that for every dollar spent in EFNEP reaped an \$11 savings in reduced health care costs (Lang, 1999).

Evaluation is recognized as an essential element in quality programming

(Dollahite and Scott-Pierce, 2003), particularly in the present economic climate.

Extension educators strive to maintain, and even improve, the outcomes of their work

with diminishing resources. To improve, educators should continually and critically assess the effectiveness of their provided educational programming in both content and process. This assessment can provide useful information on how to advance programming, adjust methods, and improve impact results. On-going evaluation is critical to assure that programs adjust with the changing times and continue to be effective in meeting the needs of participants (Dollahite and Scott-Pierce, 2003).

Summary

This review of literature has attempted to highlight Extension's background, examine some of the health issues of American youth and adults, and to study how lives can be improved through nutrition education supplied by Extension educators.

Nutrition-related health issues are not just vast and complicated, they are worsening. Both children and adults suffer serious health problems due to their choices of nutritional intake and life-style habits. Obesity, diabetes, cardiovascular diseases, cancer and stroke, are just a few of the serious conditions that can be prevented or improved by consuming a proper diet and making better life-style decisions.

Extension educators can positively impact the lives of youth and adults by providing appropriate education on nutrition. By understanding the Food Guide Pyramid and its implications, utilizing specific learning and teaching techniques, developing positive and effective partnering and networking relationships, and incorporating efficient program evaluation, Extension educators can play a key role in improving the health and quality of life of Oklahoma residents.

CHAPTER 3

PROCEDURES

Design of the Study

The design of the study was a descriptive survey. An original instrument was developed based upon the fundamentals of Cooperative Extension program presentation as well as the elements of the Healthy Living A-Z curriculum. The study was a "snapshot in time".

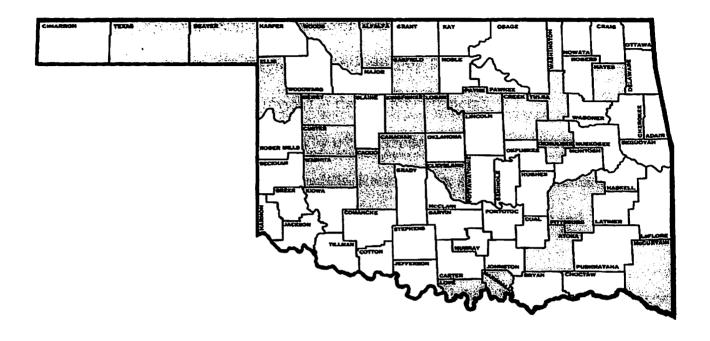
Population

This study was not based on population sampling, but rather on the population of the current Oklahoma State University Family and Consumer Sciences Extension Educators on the Nutrition Health and Wellness Impact Team, with the exception of the researcher.

The term "current" refers to the period of November and December, 2003. Due to the natural inflow and outflow of Oklahoma State University Extension Educators, retirements and separations, as well as variations within and among all impact team memberships, the status of the Nutrition, Health and Wellness Impact Team membership is subject to change, and has been affected by these forces. All Oklahoma counties whose Family and Consumer Sciences Extension Educator were on the Nutrition, Health and Wellness Impact Team at the time of the study were included. Over the State of Oklahoma the shaded counties in Figure 2 were represented:

Figure 2

Counties Represented in the Study



Instrument Description and Development

The instrument used was a written 26-question survey which also included at the beginning a Yes/No confirmation that the receiver had indeed taught from the Healthy Living A-Z curriculum during all or part of the period 1999 to the present. The survey was divided into four sections, each of which corresponded numerically to its respective objective. The four sections were:

- 1. Teaching techniques
- 2. Audiences
- 3. Successes
- 4. Challenges

Questions were formulated to be answered as:

- Yes/No
- Multiple Choice(s)
- Brief Answer (number response or short comment)
- Likert-like Scale of Agree/Disagree utilizing five increments
 In addition, space was provided at the end for comments.

The instrument was developed by the researcher with the assistance of State Specialist Barbara Brown, District Specialist Recia Garcia, Agriculture Education Professor Emeritus James Key, and State 4-H Specialist/Program Leader and Thesis Advisor Charles Cox.

The survey was submitted to the Oklahoma State University Institutional Review Board on October 20, 2003 and received final approval after minor revisions on November 12, 2003.

Data Gathering Procedures

Data gathering procedures included sending the 26-question survey via U.S. Mail to each of the current 24 impact team members on Monday, November 24, 2003. The enclosed cover letter explained the survey and its purpose. A self-addressed/postage paid envelop was included in each envelope. Instruments were numbered so the researcher could track responses and do follow up contacts as needed. No efforts were made to identify responses with the respondents. No deadline was stated; participants were encouraged to return their completed surveys promptly. As surveys were returned, names were checked off according to the indicator on each. Approximately one month after

mailing, five surveys remained out. "Friendly reminder" telephone calls resulted in the remaining surveys being returned by January 1, 2004.

Data Analysis Techniques and Statistics

Descriptive data analysis techniques utilized included:

- Frequency counts
- Mean
- Mode
- Median
- Percentages
- Ranks

CHAPTER 4

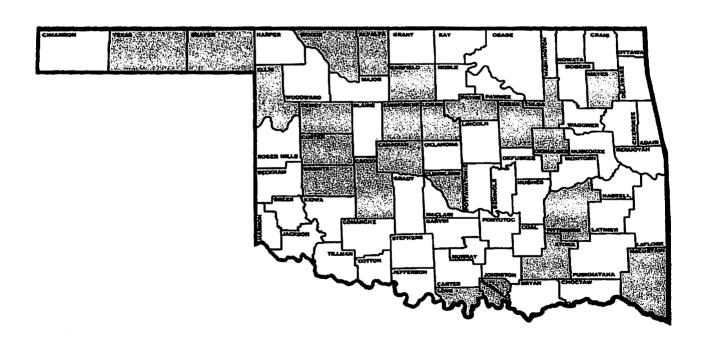
FINDINGS

Demographic Data and Return Percentage

All of the Oklahoma State University Cooperative Extension Educators who had self-selected to be on the Nutrition, Health and Wellness Impact Team were included in the census. Over the State of Oklahoma the shaded counties in Figure 3 were represented:

Figure 3

Counties Represented in the Study



The return rate was one hundred percent: 24 surveys were distributed to Impact Team members, 24 were returned. This number represents all Nutrition, Health and

Wellness Impact Team members currently serving at the county level except the researcher. The researcher, representing Grant County, was omitted from the survey in the effort to reduce the likelihood of bias in the study.

Results of Survey

Results are reported in both table and text form for the various parts of the survey and for specific items in the survey. Percentages are rounded to the nearest full number.

Section 1: Teaching Techniques

The first portion of the study sought to determine what teaching methods were most often used by the educators in the study.

Results in Table 1 indicated that all four teaching methods have been utilized by the majority of impact team members. Demonstration and Combination of two or more have each been used by 22 members for a 92% usage rate and a tie for first place in the ranking; each technique was not used by one member for 4% non-usage rate. Hands-On was utilized by 21 members for an 88% usage rate and third place rank; it was not used by 2 members for 8% non-usage rate. Lecture was utilized by 19 members for a 79% usage rate and fourth place rank; it was not used by one member for a 4% non-usage rate.

Table 1
Teaching Methods Used by Impact Team Members

Method	Yes	%	No	%	Rank
Demonstration	22	92%	1	4%	Tie for 1
Combination of two or more	22	92%	1	4%	Tie for 1
Hands-On	21	88%	2	8%	3
Lecture	19	79%	1	4%	4

Table 2 was used to summarize the most preferred teaching method of the respondents. The most preferred teaching method was Combination of two or more noted by 13 members for 54% and first place in the ranking. Demonstration was noted by eight members for 33% and second place in the ranking. Hands-On was noted by seven members for 29% and third place in the ranking. Lecture ranked fourth place with no notations for 0%. All members indicated a preference and some indicated more that one preference, hence the percentage column totals 116%.

Table 2

Impact Team Members' Teaching Methods of Choice

Method	Number	% of Educators	Rank
Combination of two or more	13	54%	1
Demonstration	8	33%	2
Hands-On	7	29%	3
Lecture	0	0%	Tie for 4
No Preference	0	0%	Tie for 4
Total	28	116%	

Table 3 indicated that all 24 impact team members have incorporated a tasting session in one or more presentations for 100%. In addition, Table 4 showed that sixteen impact team members have incorporated a full meal in one or more presentations for 67%. Eight members have not incorporated a full meal for 33%.

Table 3

Impact Team Members Incorporating a Tasting Session in One or More Presentations

Response	Number	%
Yes	24	100%
No	0	0%
Total	24	100%

Table 4

Impact Team Members Incorporating a Full Meal in One or More Presentations

Response	Number	%
Yes	16	67%
No	8	33%
Total	24	100%

Table 5 illustrated that all Healthy Living A-Z lessons have been taught by at least one impact team member. Snacking Savvy has been taught by 23 members, for 96%, and first place rank. Soups On has been taught by 20 members, for 83%, and second place rank. Stir Fry has been taught by 18 members, for 75%, and third place rank. Desserts, Healthy Holiday, One-Dish Meals, and Smoothies have each been taught by 17 members, for 71%, and tie for fourth place rank. Baking has been taught by 15 members, for 63%, and eighth place rank. Salad Essentials has been taught by 14 members, for 58%, and

ninth place rank. Microwave Magic has been taught by 13 members, for 54%, and tenth place rank. Grilling has been taught by 12 members, for 50%, and eleventh place rank. Slow Cooking has been taught by 10 members, for 43%, and twelfth place rank. Garnishing has been taught by 9 members, for 38%, and 13th place rank.

Table 5

<u>Lessons Taught</u>

Lesson	Number	% of Educators	Rank
Snacking Savvy	23	96%	1
Soups On	20	83%	2
Stir Fry	18	75%	3
Desserts	17	71%	4, tie
Healthy Holiday	17	71%	4, tie
One-Dish meals	17	71%	4, tie
Smoothies	17	71%	4, tie
Baking	15	63%	8
Salad Essentials	14	58%	9
Microwave Magic	13	54%	10
Grilling	12	50%	11
Slow Cooking	10	42%	12
Garnishing	9	38%	13
Pasta and Rice Toppers	6	25%	14
Strawberries	5	21%	15
Potatoes	4	17%	16, tie
Other	4	1 7%	16, tie
Jeopardy Fruit/Vegetable	3	13%	18, tie
Produce Under Pressure	3	13%	18, tie
Steaming	1	4%	20

Rice and Potato Toppers has been taught by 6 members, for 25%, and 14th place rank. Strawberries has been taught by 5 members, for 21%, and 15th place rank. Potatoes and Other have each been taught by 4 members, for 17%, and tie for 16th rank; other topics listed included Food Preservation, Breakfast, Licopene, and Healthy Snacks for Pre-Schoolers. Jeopardy Fruit/Vegetable and Produce Under Pressure have each been taught by three members, for 13%, and tie for 18th rank. Ranking last (20th) is Steaming, taught by one member, for 4%. The mean frequency count for all impact team members is 9.5 lessons taught. Range is from 2 to 16.

As is evident in Table 6, eighteen impact team members, for 75%, have created a recipe booklet using recipes from one or more of the lessons, leaving 6 members or 25% who have not.

Table 6

Impact Team Members Creating a Recipe Booklet Using Recipes from One or More of the Lessons

Response	Number	%
Yes	18	75%
No	6	25%
Total	24	100%

Results in Table 7 indicated that seventeen impact team members, for 71%, have worked with fellow impact team members to co-present one or more lessons. Seven members, for 29% have not worked with fellow impact team members to co-present.

Table 7

<u>Impact Team Members Who Have Worked with Fellow Impact Team Members to Co-</u>
Present One or More Lessons

Response	Count	%
Yes	17	71%
No	7	29%
Total	24	100%

To compare, Table 8 showed that ten impact team members, for 42%, have worked with educators not on the Nutrition, Health and Wellness Impact Team to copresent one or more lessons. Fourteen impact team members, for 58%, have not done so.

Table 8

<u>Impact Team Members Who Have Worked with Educators Not on the Nutrition, Health</u>
and Wellness Impact Team to Co-Present One or More Lessons

Response	Number	%
Yes	10	42%
No	14	58%
Total	24	100%

In addition, data presented in Table 9 illustrated that fourteen impact team members, for 58%, have worked with persons not associated with Extension to co-present one or more lessons. Ten impact team members, for 42%, have not done so.

Table 9

<u>Impact Team Members Who Have Worked with Persons Not Associated with Extension</u> to Co-Present One or More Lessons

Response	Number	%
Yes	14	58%
No	10	42%
Totals	24	100%

Impact team members were required by the impact evaluation committee to evaluate Healthy Living A-Z using the provided evaluation component at least once yearly after presenting a series of a minimum of three separate lessons. According to the data presented in Table 10, sixteen impact team members, for 67%, typically presented lessons in a series of three or more separate sessions. Eight members, for 33%, did not typically present in this manner.

Table 10

<u>Impact Team Members Who Typically Presented Lessons in a Series of Three or More Separate Sessions</u>

Response	Number	%
Yes	16	67%
No	8	33%
Total	24	100%

As was explained above, yearly evaluation was required. Table 11 indicated that eleven impact team members, for 46%, reported using the provided evaluation component usually, ranking first. Nine members, for 38%, used the provided evaluation component always, ranking second. Three members, for 13%, used the provided

evaluation component occasionally, ranking third. One member, for 4%, has never used the provided evaluation component, ranking fourth.

Table 11

Impact Team Members' Use of Provided Evaluation Component

Response	Number	% of Educators	Rank
Usually	11	46%	1
Always	9	38%	2
Occasionally	3	12%	3
Never	1	4%	4
Total	24	100%	

Section 2: Audiences

Section 2 examined the audiences reached as well as methods used to promote presentations to those audiences.

Table 12 illustrated audiences reached. Results showed that twenty one impact team members, 88%, have reached Adult and OHCE audiences, a tie for first place ranking. Nineteen members, 79%, have reached youth audiences, ranking third.

Eighteen members, 75%, have reached 4-H Groups, ranking fourth. Nine members, 38%, have reached retirees, ranking fifth. Eight members, 33%, have reached Elementary Students, ranking sixth. Seven members, 29%, have reached other audiences, ranking seventh; other audiences included TANF clients, Senior Citizen luncheon, Agriculture Education classes, Head Start parent meetings, low economic, general public, Alternative Education, Healthy Families program. Five members, 21%, have reached Food Stamp

Recipients, ranking eighth. Four members, 17%, have reached Diabetes Support Groups, ranking ninth. Three members, 13%, have reached FCCLA Students, ranking tenth.

The smallest number of different audiences reached by a team member was two; the largest was eleven; mean was five. It must be noted that of the listed audiences, some overlapping was expected. For example, OHCE members were also adults and 4-H members were also youth. However, it was important to identify specific audiences in addition to general audiences.

Table 12

Audiences Reached by Impact Team Members with Healthy Living A-Z

Audience	Number	% of Educators	Rank
Adult	21	88%	1, tie
OHCE	21	88%	1, tie
Youth	19	79%	3
4-H Groups	18	75%	4
Retirees	9	38%	5
Elementary Students	8	33%	6
Other *	7	29%	7
Food Stamp Recipients	5	21%	8
Diabetes Support Group	4	17%	9
FCCLA Students	3	13%	10

^{* &}quot;Other" audiences included TANF clients, Senior Citizen luncheon, Agricultural Education classes, Head Start parent meetings, low economic, general public, Alternative Education, Healthy Families program.

As seen in Table 13, various methods were used by impact team members to promote presentations. Twenty-one members, for 88%, used newsletters, ranking first. Twenty members, 83%, used newspapers, ranking second. Nineteen members, 79%,

used flyers, ranking third. Sixteen members, 67%, used personal contacts, ranking fourth. Contacts with school personnel and special invitation were both used by nine members, for 38%, a tie for fifth place rank. Eight members, 33%, used contacts with other government agencies, ranking seventh. Five members, 21% used radio, ranking eighth. Both television and other were used by two members, for 8%, and tying for ninth place ranking. Other methods listed included email and grassroots groups.

Table 13

Methods Used to Promote Healthy Living A-Z Presentations

Promotion method	Number	% of Educators	Rank
Newsletters	21	88%	1
Newspapers	20	83%	2
Flyers	19	79%	3
Personal contacts	16	67%	4
Contacts with school personnel	9	38%	5, tie
Special invitation	9	38%	5, tie
Contacts with other government agencies	8	33%	7
Radio	5	21%	8
Television	2	8%	9, tie
Other *	2	8%	9, tie

^{* &}quot;Other" included email and grassroots groups.

Table 14 revealed the percentage of educators who indicated specific primary audiences. Impact team members were not restricted to designating a single primary audience. Rural audiences were reached by 17 members, for 71%, ranking first. Small town audiences were reached by 10 members, for 42%, ranking second. Urban audiences

were reached by 4 members, for 17%, ranking third. Suburban audiences were reached by 3 members, for 13%, ranking fourth.

Table 14

Primary Audiences

Primary Audience	Number	% of Educators	Rank
Rural	17	71%	1
Small town	10	42%	2
Urban	4	17%	3
Suburban	3	13%	4

Table 15 showed the percentage of educators who indicated specific primary audience age groups. Again, impact team members were not restricted to designating a single primary audience age. Tying for first place rank, Over 50 years and Under 18 were both named by 13 members, for 54%. Ten members, 42%, named Between 19 and 50 years, ranking third. One member, 4%, indicated Uncertain, ranking fourth.

Table 15

Primary Audience Ages

Age range	Number	% of Educators	Rank
Over 50 years	13	54%	1, tie
Under 18	13	54%	1, tie
Between 19 and 50 years	10	42%	3
Uncertain	1	4%	4

Section 3: Successes

Section 3 explored a variety of successes achieved by impact team members as they taught from Healthy Living A-Z.

The results in Table 16 illustrated the impact team members' favorite lessons to present. Impact team members were not restricted to designating a single favorite lesson to present. Snacking Savvy was indicated by 14 members, for 58%, ranking first. Smoothies was indicated by 13 members, for 54%, ranking second. Stir Fry was indicated by 10 members, for 43%, ranking third. Both Desserts and One-Dish Meals were indicated by eight members, for 33%, tying for fourth place ranking. Healthy Holiday and Soups On were each indicated by seven members, for 29%, tying for sixth place ranking. Baking and Microwave Magic were each indicated by six members, for 25%, tying for eighth place ranking. Garnishing, Grilling and Salad Essentials were each named by five members, for 21%, tying for tenth place rank. Potatoes and Slow Cooking were each indicated by 4 members, for 17%, tying for 13th place ranking. Jeopardy Fruit/Vegetable, Produce Under Pressure, and Other were each indicated by one member, for 4%, tying for 17th place ranking; other lesson was Healthy Snacks for Pre-Schoolers. Steaming received 20th place ranking, being indicated by no members, for 0%. The mean frequency count for all educators was 4.6 favorite lessons to present. Range was from 2 to 16.

Table 16
Favorite Lessons to Present

Lesson	Number	% of Educators	Rank
Snacking Savvy	14	58%	1
Smoothies	13	54%	2
Stir Fry	10	43%	3
Desserts	8	33%	4, tie
One-Dish Meals	8	33%	4, tie
Healthy Holiday	7	29%	6, tie
Soups On	7	29%	6, tie
Baking	6	25%	8, tie
Microwave Magic	6	25%	8, tie
Garnishing	5	21%	10, tie
Grilling	5	21%	10, tie
Salad Essentials	5	21%	10, tie
Potatoes	4	17%	13, tie
Slow Cooking	4	17%	13, tie
Pasta and Rice Toppers	3	13%	15, tie
Strawberries	3	13%	15, tie
Jeopardy Fruit/Vegetable	1	4%	17, tie
Produce Under Pressure	1	4%	17, tie
Other *	1	4%	17, tie
Steaming	0	0%	20

^{* &}quot;Other" was not specified.

Results in Table 17 indicated which lessons were perceived by impact team members to have been received with the most enthusiasm. This list was topped by Smoothies, indicated by 11 members, for 46%. Desserts, Healthy Holidays, Snacking Savvy and Stir Fry tie for second place ranking, each having been indicated by eight

members, for 33%. Slow Cooking was indicated by five members, for 21%, ranking sixth. Microwave Magic was indicated by four members, for 17%, ranking seventh. Garnishing, Grilling, Salad Essentials, and Soups On were each indicated by three members, for 13%, tying for eighth place ranking. Baking, One-Dish Meals and Strawberries were each indicated by two members, for 8%, tying for twelfth place ranking. Potatoes, Produce Under Pressure and Other were each indicated by one member, for 4%, tying for 15th place ranking; the Other lesson was Breakfast. In last place, receiving no members' indications, for 0%, were Jeopardy Fruit/Vegetable, Pasta and Rice Toppers and Steaming. The mean frequency count for all educators was 3.0. Range was from 0 to 7.

Table 17
Lessons Received with the Most Enthusiasm

Lesson	Number	% of Educators	Rank
Smoothies	11	46%	1
Desserts	8	33%	2, tie
Healthy Holiday	8	33%	2, tie
Snacking Savvy	8	33%	2, tie
Stir Fry	8	33%	2, tie
Slow Cooking	5	21%	6
Microwave Magic	4	17%	7
Garnishing	3	13%	8, tie
Grilling	3	13%	8, tie
Salad Essentials	3	13%	8, tie
Soups On	3	13%	8, tie
Baking	2	8%	12, tie
One-Dish Meals	2	8%	12, tie
Strawberries	2	8%	12, tie
Potatoes	1	4%	15, tie
Produce Under Pressure	1	4%	15, tie
Other *	1	4%	15, tie
Jeopardy Fruit/Vegetable	0	0%	18, tie
Pasta and Rice Toppers	0	0%	18, tie
Steaming	0	0%	18, tie

^{* &}quot;Other" was not designated.

The results in Table 18 listed Impact team members' largest audiences and the number of educators who reached that size audience. The largest audiences ranged from a minimum of 10 to a maximum of 70. The mode was 40; median was 25; and mean was 29.8 for all impact team members.

Table 18

<u>Largest Single Audience Reached</u> (in ascending order)

Audience size	Number of team members reporting
10	2
12	1
15	1
17	1
20	2
21	1
22	1
25	5
30	2
35	1
38	1
40	1
42	1
50	2
59	1
70	1

Impact team members were asked to indicate the time of day which they perceived to attract the largest audience; they were not restricted to designating a single time of day. These results were reported in Table 19. Afternoon was indicated by 14 members, for 58%, ranking first. Evening was indicated by seven members, for 29%, ranking second. The option of "no preference" was listed in the survey, indicating no perceived difference as to the best time of day. Four members, for 17%, indicated no preference, ranking third. Morning ranked last or fourth place, indicated by three members, for 13%.

Table 19

<u>Time(s) of Day Usually Drawing the Largest Audience</u>

Time(s) of Day	Number	% of Educators	Rank
Afternoon	14	58%	1
Evening	7	29%	2
No preference	4	17%	3
Morning	3	13%	4

Section 4: Challenges

Section 4 examined some of the challenges faced by impact team members as they taught from Healthy Living A-Z.

Table 20 illustrated the results of impact team members' least favorite lessons to present. Sixteen impact team members, for 67%, indicated None or note sure, when asked their least favorite lesson to present, ranking first among their choices. Microwave Magic and Soups On were each indicated by two members, for 8%, ranking second. Baking, Garnishing, Grilling and Potatoes each were indicated by one member, for 4%, tying for fourth place ranking. All other lessons received no indications, for 0%, tying for eighth place ranking or last. Of those members indicating a lesson title (excluding those who indicated None or not sure), the mean frequency count was .33. Range for all choices was from 0 to 3.

Table 20
Impact Team Members' Least Favorite Lessons to Present

Lesson	Number	% of Educators	Rank
None or not sure	16	67%	1
Microwave Magic	2	8%	2, tie
Soups On	2	8%	2, tie
Baking	1	4%	4, tie
Garnishing	1	4%	4, tie
Grilling	1	4%	4, tie
Potatoes	1	4%	4, tie
Desserts	0	0%	8 or last
Healthy Holiday	0	0%	8 or last
Jeopardy Fruit/Vegetable	0	0%	8 or last
One-Dish Meals	0	0%	8 or last
Pasta and Rice Toppers	0	0%	8 or last
Produce Under Pressure	0	0%	8 or last
Salad Essentials	0	0%	8 or last
Slow Cooking	0	0%	8 or last
Smoothies	0	0%	8 or last
Snacking Savvy	0	0%	8 or last
Strawberries	0	0%	8 or last
Steaming	0	0%	8 or last
Stir Fry	0	0%	8 or last

Respondents' perceptions of lessons that were received with the least enthusiasm were presented in Table 21. Twelve respondents, (50%), indicated None or Not sure, when asked which lessons were receive with the least enthusiasm, ranking first among their choices. Four members, (17%), indicated Microwave Magic, ranking second. Two members, (8%), indicated Garnishing, ranking third. Six lessons tied for fourth, each

receiving one member's indication, for 4%: Grilling, Pasta and Rice Toppers, Produce Under Pressure, Snacking Savvy, Soups On and Steaming. All other lessons received no indications. The mean frequency count for all members indicating a lesson topic (excluding those indicating None or not sure) was .5. Range was from 0 to 2.

Table 21

Lessons Received with the Least Enthusiasm

Lesson	Number	% of Educators	Rank
None or not sure	12	50%	1
Microwave Magic	4	17%	2
Garnishing	2	8%	3
Grilling	1	4%	4, tie
Pasta and Rice Toppers	1	4%	4, tie
Produce Under Pressure	1	4%	4, tie
Snacking Savvy	1	4%	4, tie
Soups On	1	4%	4, tie
Steaming	1	4%	4, tie
Baking	0	0%	10 or last
Desserts	0	0%	10 or last
Healthy Holidays	0	0%	10 or last
Jeopardy Fruit/Vegetable	0	0%	10 or last
One-Dish Meals	0	0%	10 or last
Potatoes	0	0%	10 or last
Salad Essentials	0	0%	10 or last
Slow Cooking	0	0%	10 or last
Smoothies	0	0%	10 or last
Strawberries	0	0%	10 or last
Stir Fry	0	0%	10 or last

Impact team members were asked to indicate lessons they were not sure they would ever try to present. Results in Table 22 indicated that ten impact team members, for 42%, indicated None or not sure, ranking first among their choices.

Table 22

<u>Lessons Impact Team Members Are Not Sure They Will Ever Try to Present</u>

Lesson	Number	% of Educators	Rank
None or not sure	10	42%	1
Produce Under Pressure	6	25%	2
Microwave Magic	4	17%	3
Jeopardy Fruit/Vegetable	3	13%	4, tie
Slow Cooking	3	13%	4, tie
Steaming	3	13%	4, tie
Grilling	2	8%	7
Garnishing	1	4%	8, tie
One-Dish Meals	1	4%	8, tie
Salad Essentials	1	4%	8, tie
Smoothies	1	4%	8, tie
Strawberries	1	4%	8, tie
Stir Fry	1	4%	8, tie
Baking	0	0%	13 or last
Desserts	0	0%	13 or last
Healthy Holiday	0	0%	13 or last
Pasta and Rice Toppers	0	0%	13 or last
Potatoes	0	0%	13 or last
Snacking Savvy	0	0%	13 or last
Soups On	0	0%	13 or last

Six members, for 25%, indicated Produce Under Pressure, ranking second. Four members, for 17%, indicated Microwave Magic, ranking third. Jeopardy

Fruit/Vegetable, Slow Cooking, and Steaming were each indicated by three members, for 13%, tying for fourth place ranking. Two members, for 8%, indicated Grilling, ranking seventh. Six lessons each received one indication from members, for 4%, and tying for eighth place: Garnishing, One-Dish Meals, Salad Essentials, Smoothies, Strawberries and Stir Fry. All remaining lessons received no indications, for 0%, and tying for 13th place, ranking last. The mean frequency count for all members indicating a choice (excluding those indicating None or not sure) was 1.1. Range was from 0 to 5.

Impact team members were asked to indicate how their presentations were funded. Data in Table 23 summarized these results. Participation fee and County agency money were each indicated as funding sources by 16 members, for 67%, tying for first place rank. Eleven members, for 46%, indicated At my own expense, ranking third. Other sources were indicated by 7 members, for 29%, ranking fourth; other sources of funding included grocery store donations, Ambassadors Grant/grant money (indicated by three members), paid by retirement center, program funds and tribal funds, and hospital. Donations and School support were each indicated by five members, for 21%, tying for fifth place ranking.

Table 23
Funding Sources for Healthy Living A-Z Presentations

Funding	Number	% of Educators	Rank
Participation fee	16	67%	1, tie
County agency money	16	67%	1, tie
At my own expense	11	46%	3
Other *	7	29%	4
Donations	5	21%	5, tie
School support	5	21%	5, tie

^{* &}quot;Other" included grocery store donations, Ambassadors Grant/grant money, paid by retirement center, program funds and tribal funds, and hospital.

Table 24 illustrated the results indicating where presentations have been held.

Nineteen impact team members, for 79%, indicated Classroom as one location they have used for Healthy Living A-Z presentations, ranking first. Seventeen members, for 71%, indicated Fair Grounds Facility, ranking second. Fifteen members, for 63%, indicated County Extension Office, ranking third. Thirteen members, for 54%, indicated Community Civic/Activity Room, ranking fourth. Eight members, for 33%, indicated Senior Citizen Center, ranking fifth. Six members, for 25% indicated Other, ranking sixth; other locations included grocery stores, homes, retirement center, library, counseling center, and higher education center. Four members, for 17%, indicated Church, ranking seventh or last place.

Table 24

Locations for Presentations

Location	Number	% of Educators	Rank
Classroom	19	79%	1
Fair Grounds Facility	17	71%	2
County Extension Office	15	63%	3
Community Civic/Activity Room	13	54%	4
Senior Citizen Center	8	33%	5
Other *	6	25%	6
Church	4	17%	7

^{* &}quot;Other" included grocery stores, homes, retirement center, library, counseling center, and higher education center.

Impact team members were asked to indicate on a Likert-like scale their level of agreement that obtaining adequate equipment for presenting Healthy Living A-Z was difficult. These results were presented in Table 25. In responding to this five-increment scale, twelve members, for 50%, indicated increment five - the highest level of disagreement - to the question, signifying they disagree that obtaining adequate equipment for program presentation is a problem. Increments three and four each received five members' indications, for 21%, tying for second place ranking. Increment two received one member's indication, for 4%, ranking fourth place. The highest level of agreement, increment one, received no indications, for 0%, ranking fifth. One survey participant did not respond to this question, hence the total of 23.

Table 25

Difficulty of Obtaining Adequate Equipment for Program Presentation

Level of agreement	Number	% of Educators	Rank
1 – Agree	0	0%	5
2	1	4%	4
3	5	22%	2, tie
4	5	22%	2, tie
5 - Disagree	12	52%	1
Total	23	100%	

Impact team members were also asked to indicate on a Likert-like scale their level of agreement that obtaining adequate facilities for presenting Healthy Living A-Z was difficult. These results were revealed in Table 26. In responding to this five-increment scale, ten members, for 42%, indicated increment five - the highest level of disagreement - to the question, signifying they disagree that obtaining facilities for program presentation is a problem. Increment four received six members' indications, for 25%, ranking second. Increment three received five members' indications, for 21%, ranking third place. The two highest increments of agreement, increments one and two, each received one indication, for 4% each, tying for fourth and last place. One survey participant did not respond to this question, hence the total of 23.

Table 26

Difficulty of Obtaining Facilities for Program Presentation

Level of agreement	Number	% of Educators	Rank
1 - Agree	1	4%	4, tie
2	1	4%	4, tie
3	5	22%	3
4	6	26%	2
5 - Disagree	10	44%	1
Total	23	100%	

Additional Comments:

An open-ended question was used to gather additional comments from the educators in the study. Table 27 provided a list of the comments from those who chose to respond to this item. While most of the comments might be considered as neutral or positive in nature; however, a couple of the respondents indicated that there was a financial burden associated with conducting the programs.

Table 27

A Listing of Educator Comments

- It is harder to be in the evaluation process when you have to do three in a row. Easier to participate in evaluation if they stand alone.
- I have added animation & different clipart to the Power Point Presentations to improve the presentation from overheads. I would like a source of free & legal music clips to insert in the Power Points.
- The lessons are very strong in information and very easy to teach. In the future –
 lessons to be developed stay with health issues, i.e. type 2 diabetes, childhood
 obesity, a lesson for school cooks.
- Facilities and money for purchase of ingredients are the biggest problem. Probably the money issue is number one.
- It has been an easy curriculum to work with. I have especially enjoyed using it with youth audiences.
- Healthy Living A-Z is a wonderful educational program. I love teaching and using the lessons and resources developed by impact team members.
- I enjoy using this curriculum and would like to see us continue to use it.
- I used pork cooking school kits and what I have purchased with grant (or home stuff).
- Healthy Living A-Z has wonderful curriculum and Barbara Brown does not receive
 near enough credit for how much she puts into it. Oklahoma is very lucky to have
 such in-depth programming.

Summary of Findings

Section 1: Teaching Techniques

Nearly all team members have used all four teaching methods while presenting Healthy Living A-Z. The teaching method most highly favored is the Combination of Two or More by 54% of team members, followed by Demonstration by 33% of team members, and Hands-On with 29%. Percentage totals 116 due to a few members indicating more than one method of choice.

All 24 team members (100%) have incorporated a tasting session into a presentation, and two-thirds (67%) have incorporated a full meal into a session.

All lessons have been utilized. The top seven lessons and the percentage of members using them include:

- 1. Snacking Savvy, 96%
- 2. Soups On, 83%
- 3. Stir Fry, 75%
- 4. Desserts, 71%
- 5. Healthy Holiday, 71%
- 6. One-Dish Meals, 71%
- 7. Smoothies, 71%

Three-quarters (75%) of the impact team members have created a recipe booklet using Healthy Living A-Z recipes.

Networking within Extension and with other persons/agencies to teach Healthy Living A-Z is common, as indicated below:

- 71% have worked with fellow impact team members.
- 42% have worked with non-impact team educators.
- 58% have worked with persons not associated with extension.

Two-thirds (67%) of the impact team members typically present lessons in a series of three or more sessions.

The evaluation component provided with the Healthy Living A-Z curriculum is not used consistently by all impact team members, as indicated below:

- 33% report using it Always
- 46% report using it Usually
- 13% report using it Occasionally
- 4% report using it Never

Section 2: Audiences

Healthy Living A-Z Impact Team members have reached a wide variety of audiences. The smallest number of different audiences reached by a member was two; the largest was eleven, average was five. The most frequently reached audiences include:

- Adult, reached by 88% of team members
- OHCE, reached by 88% of team members
- Youth, reached by 79% of team members
- 4-H Groups, reached by 75% of team members

A variety of promotional methods was used by impact team members. Those methods used by at least half of the team members include:

Newsletters, used by 88% of team members

- Newspapers, used by 83% of team members
- Flyers, used by 79% of team members
- Personal Contacts, used by 67% of team members

The most frequently reached audiences demographically were Rural, reached by 71% of the team members, and Small town, reached by 42% of the team members.

When audience groups were divided into age divisions, the oldest group, over 50 years, and the youngest group, under 18, were each reached by 54% of team members.

The middle age group, between 18 and 50 were reached by 42% of team members.

Section 3: Successes

Impact team members reported their favorite lessons to present as:

- Snacking Savvy, chosen by 14 members, 58%
- Smoothies, chosen by 13 members, 54%
- Stir Fry, chosen by 10 members, 43%

At least one-third of the impact team members reported the following lessons to be ones they believed to have been received with most enthusiasm:

- Smoothies, reported by 11 members, 46%
- Desserts, reported by 8 members, 33%
- Healthy Holiday, reported by 8 members, 33%
- Snacking Savvy, reported by 8 members, 33%
- Stir Fry, reported by 8 members, 33%

The larges single audiences reported by impact team members ranged from 10 to 70 participants, averaged 29.8 participants and had a median of 25 participants.

The time of day the majority of impact team members believed usually drew the largest audience was afternoon, indicated by 14 members, for 58%. Evening was second choice, with seven members, for 29% indicating that time of day.

Section 4: Challenges

When asked for their least favorite lesson to present, two-thirds of the team members, 67%, indicated none or not sure. The two lessons receiving the most indications were Microwave Magic and Soups On; each received two indications, for 8% of the team members.

The lesson that the most impact team members believed was received with the least enthusiasm was Microwave Magic, having been indicated by four members, for 17%. Garnishing received two indications, for 8%. All others received one or zero indication. Twelve members, for 50%, indicated none or not sure.

The lesson that the most impact team members were not sure they will ever try to present was Produce Under Pressure, with six indications, for 25%. Microwave Magic received four indications, for 17%. All other lessons received three or fewer indications. Ten team members, for 42%, indicated none or not sure.

The two funding sources indicated by a majority of impact team members were Participation fee and County agency money, each indicated by 16 members, for 67%. Eleven members, for 46%, indicated At my own expense, and seven members, for 29%, indicated Other sources.

A majority of team members held presentations in the following locations:

Classroom, 19 members, for 79%

- Fair Grounds Facility, 17 members, for 71%
- County Extension Office, 15 members, for 63%
- Community Civic/Activity Room, 13 members, for 54%

Other locations were also used by 17% to 33% of the members.

Twelve impact team members, for 50%, disagreed with the statement that obtaining adequate equipment for presentation of programs has been a problem. No members agreed with the statement, and ten members indicated varying degrees of agreement.

Ten impact team members, for 47%, disagreed with the statement that obtaining adequate facilities for presentation of programs has been a problem. One member, for 4%, agreed with the statement, and twelve members indicated varying degrees of agreement.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

Problem

Oklahoma State University Nutrition, Health and Wellness Impact Team members use the Healthy Living A-Z curriculum. During the course of teaching from this curriculum, team members have developed their own individual teaching techniques, reached various audiences, and experienced a variety of successes and challenges.

The problem leading to this study was the lack of a body of knowledge holding the answers to the following questions:

- What are the teaching techniques used by Nutrition, Health and Wellness
 Impact Team members to teach the Healthy Living A-Z curriculum?
- What audiences are reached by the Nutrition, Health and Wellness Impact
 Team members?
- What are some of the successes accomplished by the Nutrition, Health and
 Wellness Impact Team members as they teach Healthy Living A-Z?
- What are some of the challenges met by the Nutrition, Health and Wellness Impact Team members as they teach Healthy Living A-Z?

Purpose

The purpose of this study was to determine the techniques, audiences, successes, and challenges of Oklahoma State University Family and Consumer Sciences Nutrition, Health and Wellness Impact Team members as they taught from the Healthy Living A-Z curriculum and to provide feedback for program evaluation to the impact team.

Objectives

The objectives of this study include:

- To determine the teaching techniques used by Oklahoma State University
 Family and Consumer Sciences Extension Educators on the Nutrition, Health
 and Wellness Impact team as they teach from the Healthy Living A-Z
 curriculum.
- 2. To determine the audiences reached by Oklahoma State University Family and Consumer Sciences Extension Educators on the Nutrition, Health and Wellness Impact Team as they teach from the Healthy Living A-Z curriculum.
- 3. To determine the successes accomplished by Oklahoma State University

 Family and Consumer Sciences Extension Educators on the Nutrition, Health
 and Wellness Impact Team as they teach from the Healthy Living A-Z

 curriculum.
- 4. To determine the challenges met by Oklahoma State University Family and Consumer Sciences Extension Educators on the Nutrition, Health and Wellness Impact Team as they teach from the Healthy Living A-Z curriculum.

Summary of Major Findings

The researcher's summary of major findings is as follows, presented according to the study's objectives.

Objective 1: Teaching Techniques

Of the teaching methods listed, all four were used by nearly all impact team members; however Combination of two or more was listed as method of choice by over half of them. While every member had a preference, none chose Lecture.

Utilizing the lesson's results in the form of prepared dishes was a common practice. While incorporating a full meal was used by two thirds of the team members, all have incorporated a tasting session.

All lessons have been taught by team members; however the most popular appears to be Snaking Savvy, having been used by all but one member, for 96%. Eleven lessons have been taught by over half of the members. Recipes from these lessons have been utilized by three quarters of the team members to create a recipe booklet, another way to present educational information.

The most common networking in presenting Healthy Living A-Z lessons involved fellow impact team members. Networking with individuals not associated with Extension – such as Department of Human Services personnel, Health Department employees and teachers – was also common, practiced by over half of the team members. The least used, though still significant, practice was networking with Extension educators not on the Nutrition. Health and Wellness Impact Team.

A full two thirds of the team members typically presented lessons as a series of three or more separate lessons. Use of the evaluation component was inconsistent, but common. A total of 84% used it either Usually (46%) or Always (38%).

Objective 2: Audiences

A majority of educators indicated Adult, OHCE, Youth, and 4-H Groups as audiences, with Adult and OHCE indicated by the most, 88% of team members. Other audiences were also reached by a significant number of team members.

To promote their Healthy Living A-Z presentations, over half of the team members used Newsletters, Newspapers, Flyers, and Personal contacts, readily available and cost-effective methods. Radio and television were used by the fewest team members.

Team members indicated their primary audiences were mostly Rural, reached by 72%, followed by Small town, reached by 42%. By age divisions, Over 50 years and Under 18 were each reached by 54%, leaving Between 19 and 50 lagging somewhat with 42%.

Objective 3: Successes

Snacking Savvy and Smoothies were each indicated as a favorite lesson to present by over half the team members, while Stir Fry was indicated by 43% and Desserts was indicated by 33%. Steaming was the only lesson to not be indicated by any team members. Smoothies was indicated by 46% as a lesson received with the most enthusiasm, while Desserts, Healthy Holiday, Snacking Savvy, and Stir Fry were each indicated by 33%. Therefore Snaking Savvy, Smoothies, Desserts and Stir Fry were

among the top raters for each issue. Jeopardy Fruit/Vegetable, Pasta and Rice Toppers and Steaming rated lowest with zero indications for lessons received with the most enthusiasm.

Largest single audience range was ten to seventy, mean was 28.9 and median was 25. Time of day that team members indicated usually drew the largest audience was Afternoon, by 58% of team members.

Objective 4: Challenges

When asked their least favorite lessons to present, two thirds of the team members indicated None or not sure; thirteen lessons received no indications leaving six lessons that received one or two indications. When asked which lessons were received with the least enthusiasm, half of the team members indicated None or not sure; over half (11) of the lessons received no indications, leaving eight lessons that received one to 4 indications each. Of those lessons indicated, Microwave Magic won "top" honors for both issues.

Ten impact team members replied None or not sure when asked which lessons they were not sure they will ever try to present. "Top" honors in this question go to Produce Under Pressure with 25% of team members and Microwave Magic with 17%. Seven lessons received no indications.

Funding sources were both typical and surprising. As one might expect,

Participation fee and County agency money were indicated by two thirds of team

members. However, almost half, 46% indicated At my own expense, possibly signifying

shortage of other funding and/or high dedication to work. Other sources showed educators' creativity and resourcefulness.

Locations indicated by team members were typical for Extension programming.

Indicated by the most team members was Classroom (79%) This was followed by Fair

Grounds Facility, County Extension Office, and Community Civic/Activity Room which

were each indicated by a majority of team members. A variety of other locations were

also utilized by significant numbers of educators.

Half of all team members disagreed that obtaining adequate equipment for program presentations was a problem; none totally agreed. However, obtaining facilities appeared to be more of an issue for some. While 42% disagreed, those indicating a level of agreement were higher.

Conclusions

Close examination and interpretation of the findings provided the researcher's following conclusions, reported by the study's four objective topics.

Objective 1: Teaching Techniques

All four listed teaching methods were used by the vast majority of team members at one time or another, but when asked for their method of choice, all team members had at least one preference. Over half preferred a combination of two or more, one third preferred demonstration, and nearly one third preferred hands-on. Lecture was not preferred by anyone, indicating a preference for presentations with more activity, visual stimulation, and/or participant-involvement.

Allowing participants to at least sample the recipes played a key role in presenting lessons, as all team members utilized a tasting session and two thirds served a full meal while teaching a Healthy Living A-Z. In doing so, Nutrition, Health and Wellness Impact Team members indicate an understanding that tasting sessions and full meals utilize the additional senses of taste and smell, further enhancing the teaching process.

While all lessons have been used by at least one team member, over half (eleven) of the lessons have been used by the majority, indicating a high rate of use. Indicated by 96% of team members was Snacking Savvy, followed by Soups On by 83%, and Stir Fry by 75%. At the other end was Steaming, used by only 4%, or one team member, and Produce Under Pressure and Jeopardy Fruit/Vegetable each used by 13% or three members. Considering that of those lessons used by less than half of the team members, most were introduced in the last two years of the Impact Program cycle. If it were possible to pro-rate lesson usage by availability, these lessons would not rate so poorly.

Three fourths of the team members created a recipe booklet using recipes from one or more of the lessons, indicating an inclination for using traditional written materials to help teach.

Responses concerning working with others to co-present lessons indicated this to be a general, but inconsistent practice. Teaming with fellow impact team members was most common, followed by persons not associated with Extension. Least frequent was working with educators not on the Nutrition, Health and Wellness Impact Team. These results may indicate that although fellow impact team members work well together, they also network well with individuals and agencies within their home county or area.

Although each Healthy Living A-Z lesson can stand alone, approximately two thirds of the team members typically presented them in a series of three or more, indicating using repetition as a teaching tool.

The evaluation component of the curriculum, although emphasized by specialists, was not used consistently. Only 38% of all team members used it always, and 48% used it usually, for a total of 84%. The remainder used it occasionally or never.

Objective 2: Audiences

Survey respondents indicated reaching a wide array of audiences. Both Adult and OHCE audiences were indicated by 88% of team members. Youth and 4-H Groups were indicated by 79% and 75% respectively. These four groups together signify a large range of participants. The remaining audience groups were indicated by less than half, yet were still reached by a significant number of team members. These include: Retirees, Elementary Students, "Others", Food Stamp Recipients, Diabetes Support Group, and FCCLA Students.

A large variety of promotional methods were used by team members, indicating their efforts to reach audiences. Newsletters, newspapers, and flyers were the top three choices, all written materials and easily available to both educators and clientele. The next most used method, personal contacts, usually involving face-to-face or telephone communication, required more time, was less efficient, but could be more effective. Although used by less than half of the team members, contacts with school personnel, special invitation, and contacts with government agencies were additional ways they

promoted to audiences; these could be either written or verbal. Radio and television were generally less available to educators, and, along with "Other" were the least used.

Primary audiences indicated by team members were mixed and roughly represented Cooperative Extension's audiences as a whole, although they do not represent Oklahoma's population as a whole. All four primary audiences were reached, with the least being suburban and urban. At the top, indicated by 71%, were rural audiences, followed by small town audiences with 42%.

When audiences were broken down by age groups, they were reached surprising evenly by most educators. Just over half (54%) reached audiences over 50 years of age and under 18, while just under half (42%) reached audiences between 19 and 50 years. This finding is generally compatible with the finding concerning audience groups reached.

Objective 3: Successes

Winning top honors as favorite lessons to present were Snacking Savvy and Smoothies, with 58% and 54% of team members respectively. Half (10) of the lessons were indicated by 21% to 43% of team members. Only Steaming received no indications; all others received at least one indication. In the researcher's opinion, this is a major indication that the curriculum is user-friendly, versatile, and easily adaptable to individual presenters' needs and wants.

Lessons that presenters believed were received with the most enthusiasm were also varied. Topping that list was Smoothies, indicated by 46%, followed by Desserts, Healthy Holiday, Snacking Savvy, and Stir Fry, each with 33%. Receiving no

indications were three lessons, Steaming, Pasta and Rice Toppers, and Jeopardy
Fruit/Vegetable; all others received at least one indication. These results indicated broad
appeal to audiences, another dependable indicator of curriculum usefulness.

Team members' largest audience reached varied widely, from a minimum of ten to a maximum of 70 attendees, with an average of 29.8. This factor signifies the curriculum is adaptable to a wide range of audience sizes, another indicator of curriculum usefulness and adaptability.

The time of day which team members reported drew the largest audience was mixed; however, Afternoon, which included the lunch hour, received the most indicators, 58%. With Evening at 29%, No Preference at 17% and Morning at 13% of team members, it appears that presenters were able to adjust presentation times to those which best suit their audience needs.

Objective 4: Challenges

When asked which lesson was their least favorite to present, two thirds of the impact team members reported None or Not Sure, and 13 lessons were indicated by no team members. The remaining six lessons only received one or two indications. This signifies a lack of less-desirable lessons from the presenters' perspective.

Lessons received with the least enthusiasm were reported by team members similarly to their least favorite to present. Half reported None or Not Sure and eleven lessons received no indications. Only one lesson received four indications, one received two indications and six received one indication. This strongly signifies positive reception by attendees of a vast majority of lesson topics.

Impact team members' responses were more mixed when asked which lessons they are not sure they will ever try to present. Less than half, 42% indicated None or Not Sure; Produce Under Pressure was the lesson indicated the most, by six members. While eleven lessons received one to four indicators, seven received none. These results signify team members' overall willingness to present most lessons, another indication of a strong curriculum.

Funding for presentations came from a variety of sources. As might be expected, Participation fee and County agency money topped the list, indicated by two thirds of the team members. Signifying creativity and resourcefulness, 29% found other funding sources, 21% sought donations, and 21% solicited school support for presentations. In addition, nearly half, 46% of team members, have supported their presentations at their own expense. This fact could signify both lack of other funding and personal dedication to work.

Impact team members utilized a variety of locations for their presentations, another sign of resourcefulness. At least half used classrooms, fair grounds facilities, county Extension offices, and community civic or activity rooms, with classrooms topping the list, used by 79%. Senior citizen centers, churches and other locations were used. This not only signifies resourcefulness, but may mean wide acceptance into the community.

The difficulty of obtaining adequate equipment and facilities were reported inconsistently by team members. While half disagreed that obtaining equipment was a problem and none agreed that it was, obtaining facilities appears to have been more of an issue. Forty two percent disagreed that obtaining facilities was a problem, but one

believed it was, and half agreed in various degrees. One additional comment indicated that locating a facility was her biggest problem in presenting lessons. These results signify that, while not a major problem for most team members, equipment and location can be a major huddle for some.

Recommendations

Based upon the major findings of this study the researcher established the following recommendations.

- 1. The results of this study should be shared with the Nutrition, Health and Wellness Impact Team membership, including District and State Specialists and county educators. This could be achieved by providing the written findings and/or summary to each district office to be distributed to impact team members as hard copy or email, as well as an oral presentation of the study's findings at a state impact team inservice.
- 2. Specialists and/or other appropriate individuals should use this study as a springboard to investigate:
 - Why were some lessons were used so much, others so little?
 - What could be done to improve lesson usability and acceptability?
 - How could networking in general be improved and facilitated?
 - Why was the evaluation component not used consistently? What could be done to facilitate its use?
 - Were all audiences within reason being reached? What could be done to reach more diverse audiences?

- Were promotional methods available that were not utilized? What were they and how could they be accessed in the future?
- How were presentations adapted to reach such a wide variety of audience sizes, up to 70 attendees?
- Do funding sources exist that were previously untapped? Why have almost half the team members presented lessons at their own expense?
 Was it due to choice or necessity?
- What could be done to assist educators in accessing adequate equipment and facilities?
- 3. To expand the knowledge generated by this study, further studies could:
 - Take a closer look at teaching methods, including the effectiveness of demonstration, hands-on and lecture, plus participants' preferences.
 - Scrutinize effective networking relationships to discover ways to improve networking within and without Extension.
 - More closely examine the audiences reached by impact team members,
 breaking them down by gender and ethnicity.
 - Study which general nutrition topics most interest clientele. Does this interest differ by gender, ethnicity, age groups, locality?

Follow Up

On Wednesday, April 14th, 2004 at 1:30pm a state-wide meeting was conducted in the Oklahoma County Cooperative Extension Office of the Oklahoma State University Nutrition, Health and Wellness Impact Team members. Included in the agenda of that meeting was a presentation summary of the thesis by the researcher. This forum provided a unique opportunity for the researcher to gain additional information, which helps to address some of the questions that emerged from summarization of the original data. Because of the timeliness of this follow-up, it was added to the study, even though it was not part of the original design.

One purpose of this presentation was to further examine and discuss portions of Chapter 4, Findings – Section 4, Challenges. Of particular interest were the following survey questions:

- 20. My least favorite lesson(s) to present has (have) been: (list of options)
- 21. I believe the lesson(s) received with the least enthusiasm by participants include: (list of options)
- 22. I am not sure I will ever try to present the following lesson(s): (list of options)
- 23. I have funded my Healthy Living A-Z presentations by: (list of options)

After the presentation, impact team members were engaged in an open, informal discussion at which they were asked to share their responses not only verbally, but on provided cards. Descriptive questions typically began with "why", "what", or "how". A summary of those responses follows.

20: My least favorite lesson(s) to present has (have) been:

Frequent reasons for specifying one or more lessons as least favorite to present indicated lack of equipment (microwave ovens, basic ovens, grills and pressure cookers), lack of time (extensive preparation time as well as family meal time together) and lack of personal or audience interest/relevance to audience needs. Other comments included the lack of interest in pressure-cooking and in the technical aspect of the microwave lesson; participants wanted recipes, not knowledge on how it works. Additional comments were very positive, indicating no least favorite lesson to present and the high quality, easy usefulness of the curriculum.

21. I believe the lesson(s) received with the least enthusiasm by participants include:

Responses to this question generally echoed some of those for the previous question. Reasons that lessons were believed to be received with the least enthusiasm involved time limitations (restraints during presentations and in home situations), lack of interest in a particular cooking method (pressure cooking and microwaving) or technique (garnishing), and inadequate equipment (grill, microwave oven, pressure cooker). Other comments included presentation of Soups On to a less-than-ideal audience (homeschooled 4-H'ers or other youth) or at an inappropriate time (during the summer). One comment indicated the lack of a "Wow" factor in a lesson.

22. I am not sure I will ever try to present the following lesson(s):

Many of the same concerns as were mentioned above were voiced as reasons team members my never try to present a certain lesson. Expense of ingredients, lack of time, equipment, training and interest were primary issues. Produce Under Pressure

appears to be the most problematic lesson, although very positive comments persisted on the overall usability and quality of the curriculum.

23. I have funded my Healthy Living A-Z presentations by:

The issue of funding was discussed in two parts: 1) Amount of participation, fee if any and, 2) Impact team member's contribution, if any.

Those who charged participation fees indicated from \$2 to \$5 per session depending on the audience and expense of the lesson. Those who presented lessons as a series of three frequently offered two options: a per-session fee or a series fee. Fees for a series ranged from \$8 to \$15, while one team member indicated charging \$20 for a series of five sessions. Several team members voiced the opinion that they did not feel it was right to charge a participation fee because participants had already paid for the presentations in the form of sales tax.

Presenting lessons at educators' expense was very common. This discussion centered on what their contributions involved. Items most frequently mentioned included equipment, appliances and knives from home. While these items may not have been purchased by the educator specifically for presentations, they did suffer "wear and tear" due to usage and transportation. Contributions of food/ingredients were indicated by a majority. These contributions ranged from insignificant supplies from home (one cup of flour, a few spices) to the supplying/purchasing of all ingredients with personal funds.

With this additional information the current Nutrition, Health and Wellness

Impact Team members and specialists can be better prepared to complete the remaining impact period as well as plan future curriculum.

BIBLIOGRAPHY

- American Institute for Cancer Research. (2000). The Cancer Process. [Brochure].
- American Institute for Cancer Research. (2000). The New American Plate. [Brochure].
- American Institute for Cancer Research. (2000). <u>Reducing Your Risk of Breast Cancer</u>. [Brochure].
- American Institute for Cancer Research. (2000). <u>Reducing Your Risk of Prostate Cancer</u>. [Brochure].
- Anderson, J., Nixon, J., Woodard, J., (1998). The Healthy Heart Program Lowers Heart Disease Risk in a Rural County. <u>Journal of Extension</u>, 36 (6).
- Astroth, K. A. (2000). Justin S. Morrill—Father of the Land-Grant Colleges: A Book Review. Journal of Extension, 38 (5).
- Bairstow, R., Berry, H., & Driscoll, D. M (2002). Tips for Teaching Non-Traditional Audiences. <u>Journal of Extension</u>, 40 (6).
- Burns, M. (2003). Marilyn Burns. Instructor, 113 (3).
- Chen, N. (2001). The Meaning of Aging. <u>Journal of Extension</u>, 39 (6).
- Cooper, T. (2003). Best Practices Checklist. Instructor, 113 (1), 9.
- Cooper, T. (2003). Learning Pyramid. Instructor, 113 (3) 9.
- Couchman, G., Williams, G., & Cadwalader, D. (1994). Three keys to a Successful Limited-Resource Families Program. Journal of Extension, 32 (2).
- Dollahite, J., & Scott-Pierce, M. (2003). Outcomes of Individual vs. Group Instruction in EFNEP. <u>Journal of Extension</u>, 41 (2).
- Gillespie, A. H., Gantner, L. A., Craig, S., Dischner, K., & Lansing, D. (2003).

 Productive Partnerships for Food: Principles and Strategies. <u>Journal of Extension</u>, <u>41</u> (2).
- Gillis, D. E., & English, L. M. (2001). Extension and Health Promotion: An Adult Learning Approach. Journal of Extension, 39 (3).
- Harriman, L. (2003). Focus on Nutrition, Health and Wellness, Fall, 1.

- Harriman, L. (2004). Memorandum to Oklahoma State University Extension Educators 4-H Youth Development and Family and Consumer Sciences. RE: Prioritization of issues to Determine new Impact Programs (July, 2005-June 2009).
- Hermann, J. (1996) Diet and Diabetes. Oklahoma State University Fact Sheet T-3161.
- Hinton, A. W., & Rausa, A., et al (1992). Partners for Improved Nutrition and Health—An Innovative Collaborative Project. <u>Journal of Nutrition Education</u>, 24 (1), 67.
- Konen, J., Horton, R. L. (2000). Beneficial Science Teacher Training. <u>Journal of Extension</u>, 38 (2).
- Labonte, R. (1993). <u>Health promotion and empowerment: Practice frameworks</u>. Toronto: Center for Heath Promotion and Participation.
- Lang, S. S. (1999). National Nutrition Education Program Has Helped New Yorkers for 30 Years. <u>Human Ecology</u>, 27 (4).
- Lenichek, J., Anderson, D. R., & Tichenor, D. (1986). The Changing Face of Nutrition Education. <u>Journal of Extension</u>, 24 (2).
- Lucia, B. H. D., Kunkel, M. E., & Cason, K. L. (2003). Dietary Changes by Expanded Food and Nutrition Education Program (EFNEP) Graduates Are Independent of Program Deliver Method. Journal of Extension, 41 (3).
- Meloy, B. J. (1998). Impacts of Family Nutrition Classes Taught to Food Stamp Recipients in Grant/Adams Area of Washington State. <u>Journal of Extension</u>, 36 (4).
- Norland, E. V. T (1990). Extension Is Not Just Service. Journal of Extension, 28 (4).
- Oklahoma State University (2003). Personnel Directory.
- Produce for Better Health Foundation. (1999). <u>Fruits & Vegetables are as Good as Gold</u>. [Brochure].
- Rodewald, A. D. (2001). Delivery Systems—Is the "Latest" Technology the Greatest? <u>Journal of Extension, 39</u> (4).
- Siewe, Y. J. (2001). Empowering Cooperative Extension Educators for Heart Health Education. <u>Journal of Extension</u>, 39 (3).
- Siewe, Y. J. (2003). Obesity in Children [Abstract]. Resource Update, H&S 3.3, 12, 6.
- Stang, J. (1998). Food Guide Pyramid Fitness Game [Abstract]. <u>Journal of Nutrition</u> Education, 30, 186.

- Temple, N. T., & Gladwin, J. K. (2003). Fruit, vegetables, and the prevention of cancer. Science Direct, [On-line].
- Tuttle, C. R. (2001). Consumer Understanding of the Food Guide Pyramid and Dietary Guidelines. <u>Journal of Extension</u>, 39 (4).
- Willi, D. (2003). Is America Raising Unhealthy Kids? Instructor, 112 (6), 19.
- World Health Organization (1986). Ottawa Charter for Health Promotion. Health Promotion 1: iii-v.

APPENDIX A IRB FORM

Oklahoma State University Institutional Review Board

Protocol Expires: 11/11/2004

Date: Wednesday, November 12, 2003

IRB Application No AG0413

Proposal Title:

Teaching Healthy Living A-Z: An Examination of Oklahoma State University Extension Educators Family and Consumer Sciences Nutrition, health and Wellness Impact Team

Members' Telchniques, Audiences, Successes and Challenges

Principal Investigator(s):

Mariene Buck Rt. 1 Box 22

Charles Cox 205 4-H Bldg.

Carmen, OK 73726

Stillwater, OK 74078

Reviewed and

Processed as:

Exempt

Approval Status Recommended by Reviewer(s): Approved

Dear PI:

Your IRB application referenced above has been approved for one calendar year. Please make note of the expiration date indicated above. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

As Principal Investigator, it is your responsibility to do the following:

- 1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
- 2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
- 3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
- 4. Notify the IRB office in writing when your research project is complete.

Please note that approved projects are subject to monitoring by the IRB. If you have questions about the IRB procedures or need any assistance from the Board, please contact me in 415 Whitehurst (phone: 405-744-5700, colson@okstate.edu).

Sincerely,

Carol Olson, Chair Institutional Review Board

APPENDIX B COVER LETTER AND SURVEY



Oklahoma Cooperative Extension Service Division of Agricultural Sciences and Natural Resources Oklahoma State University

Grant County Extension Office • 112 E. Guthrie, Room 301 Courthouse Medford, Oklahoma 73759-1246 • (580) 395-2134 • Fax (580) 395-2615

Monday, November 24, 2003

Dear Nutrition, Health and Wellness Impact Team Members:

This survey is being conducted by Marlene Buck, candidate for Masters of Science Degree at Oklahoma State University and fellow member of the Nutrition, Health and Wellness Impact Team.

The purpose of this study is to determine the techniques, audiences, successes, and challenges of Oklahoma State University Family and Consumer Sciences Nutrition, Health and Wellness Impact Team Members as you taught from the Healthy Living A-Z curriculum from its beginning in 1999 to the present. As a member of that team, your responses are respectfully requested and will become the basis for my thesis. A copy of the results will be made available to the Impact Team and at each District OSU Extension Office.

Please return your completed survey in the enclosed postage paid envelope. If preferred, you may complete this form electronically by emailing me at buckm@okstate.edu for an attached survey, which can be emailed back

Participation in this survey is voluntary and your replying does imply your consent to be included in the study. Please feel free to complete the survey because:

♦ There are no right or wrong answers.

varlieve Brick

- Results will be reported only in group scores or numbers, not individually.
- ♦ You may stop completing the survey whenever you desire.
- ♦ The survey has been reviewed and approved by the OSU Institutional Review Board, a group of professionals who ensure that the questions and procedures do not violate your rights as participants. If you have questions, you may contact the Carol Olson, Director of University Research Compliance at 405-744-5700.

Please complete this survey as truthfully and completely as possible from your recollections. I do not expect you to search your programming records for this information. If you need clarifications or have questions about the survey, you may call me at the Grant County OSU Extension Office, 580-395-2134, 8:00am to 4:30pm.

I regret the necessary but unfortunate timing of this questionnaire due to already heavy workloads and Extension's uncertainties. However, I feel confident that its benefits will far outweigh the effort it requires. Although 26 questions long, you will find it quick and easy to complete. I greatly appreciate your time and cooperation. Thank You!

Sincerely,

Marlene Buck

Oklahoma State University, U.S. Department of Agriculture, State and Local governments cooperating. Oklahoma Cooperative Extension Service offers its programs to all eligible persons regardless of race, color, national origin, religion, sex, age or disability and is an Equal Opportunity Employer.



Oklahoma Cooperative Extension Service Division of Agricultural Sciences and Natural Resources Oklahoma State University

Grant County Extension Office • 112 E. Guthrie, Room 301 Courthouse Medford, Oklahoma 73759-1246 • (580) 395-2134 • Fax (580) 395-2615

Monday, November 24, 2003

Dear Nutrition, Health and Wellness Impact Team Members:

This survey is being conducted by Marlene Buck, candidate for Masters of Science Degree at Oklahoma State University and fellow member of the Nutrition, Health and Wellness Impact Team.

The purpose of this study is to determine the techniques, audiences, successes, and challenges of Oklahoma State University Family and Consumer Sciences Nutrition, Health and Wellness Impact Team Members as you taught from the Healthy Living A-Z curriculum from its beginning in 1990 to the present. As a member of that team, your responses are respectfully requested and will become the basis for my thesis. A copy of the results will be made available to the Impact Team and at each District OSU Extension Office.

Please return your completed survey in the enclosed postage paid envelope. If preferred, you may complete this form electronically by emailing me at buckm@okstate.edu for an attached survey, which can be emailed back

Participation in this survey is voluntary and your replying does imply your consent to be included in the study. Please feel free to complete the survey because:

There are no right or wrong answers.

rarlieve Byck

- ♦ Results will be reported only in group scores or numbers, not individually.
- ♦ You may stop completing the survey whenever you desire.
- ♦ The survey has been reviewed and approved by the OSU Institutional Review Board, a group of professionals who ensure that the questions and procedures do not violate your rights as participants. If you have questions, you may contact the Carol Olson, Director of University Research Compliance at 405-744-5700.

Please complete this survey as truthfully and completely as possible from your recollections. I do not expect you to search your programming records for this information. If you need clarifications or have questions about the survey, you may call me at the Grant County OSU Extension Office, 580-395-2134, 8:00am to 4:30pm.

I regret the necessary but unfortunate timing of this questionnaire due to already heavy workloads and Extension's uncertainties. However, I feel confident that its benefits will far outweigh the effort it requires. Although 26 questions long, you will find it quick and easy to complete. I greatly appreciate your time and cooperation. Thank You!

Sincerely,

Marlene Buck

Oklahoma State University, U.S. Department of Agriculture, State and Local governments cooperating. Oklahoma Cooperative Extension Service offers its programs to all eligible persons regardless of race, color, national origin, religion, sex, age or disability and is an Equal Opportunity Employer.

~	-	,		
1.0	nti	m	ЯĦ	on:

	Confirmation: Curriculum during all or part of the period 1999 to the				
	No, please stop here and return the survey completed				
1. Teaching techniques Please place a check next to the correct answers.					
1. I have used the following methods:	DemonstrationYesNo LectureYesNo Hands-OnYesNo Combination of two or moreYesNo				
2. My method of choice is:	•				
DemonstrationLecture	Hands-OnCombinationNo preference				
3. I have incorporated a tasting session in o	one or more presentationsYesNo				
4. I have incorporated a full meal in one or	more presentationsYesNo				
Desserts On Garnishing Pas Grilling Pot Healthy Holiday Pro Jeopardy Fruit/Vegetable Sal	taught: crowave MagicSmoothies ee-Dish MealsSnacking Savvy sta and Rice ToppersSoups On statoesStrawberries oduce Under PressureSteaming lad EssentialsStir Fry ow CookingOther				
6. I have created a recipe booklet using recYesNo	ipes from one or more of the lessons.				
7. I have worked with fellow impact team inYesNo	members to co-present one or more lessons.				
8. I have worked with educators <u>not</u> on the present one or more lessons YesNo	Nutrition, Health and Wellness impact time to co-				
9. I have worked with persons <u>not</u> associateYesNo	ed with Extension to co-present one or more lessons.				
10. I typically present lessons in a series ofYesNo	three or more separate sessions.				
11. I use the evaluation component providedAlwaysUsuallyOccas	d with the curriculum: ionallyNever				

2. Audiences

Living A-Z lesson(s):	audiences for whom you have	e presented one or more Heatiny			
Youth Adult OHCE	Food Stamp Recipients	Diabetes Support Group			
FCCLA Students Elementa					
Other(s)					
	,				
13. Please place a check by all those FlyersNewslettersNeContacts with school personnelContacts with other government	wspapersRadioTeleSpecial Invitation	evision Personal Contacts			
14. Audiences are primarily:UrbanSuburbanRura	lSmall town				
15. Audience ages are primarily:Over 50 yearsBetween 18 and 50 yearsUnder 18Uncertain					
	3. Successes				
Please nia	ace a check next to all those that	at apply.			
= 33 33 p.		· · · · · · · · · · · · · · · · · · ·			
16. My favorite lesson(s) to present	is (are):				
Baking	Microwave Magic	Smoothies			
Desserts Garnishing	One-Dish Meals	Snacking Savvy			
Grilling Grilling	Pasta and Rice Toppers Potatoes	Soups On Strawberries			
Healthy Holiday	Produce Under Pressure	Steaming			
Jeopardy Fruit/Vegetable	Salad Essentials	Stir Fry			
	Slow Cooking	Other			
17. I believe the lesson(s) received to Baking Desserts Garnishing Grilling Healthy Holiday Jeopardy Fruit/Vegetable	with the most enthusiasm by paMicrowave MagicOne-Dish MealsPasta and Rice ToppersPotatoesProduce Under PressureSalad EssentialsSlow Cooking	articipants include:SmoothiesSnacking SavvySoups OnStrawberriesSteamingStir FryOther			
18. The largest single audience I have	ve reached numbered approxim	nately			
19. The time(s) of day that usually dMorningAfternoonE	lraws the largest audience is (p veningNo preference	lease check all those that apply:			

4. Challenges Please place a check next to all those that apply.

20. My least favorite lesson(s) to pre	sent has (have) been:	
Baking	Microwave Magic	Smoothies
Desserts	One-Dish Meals	Snacking Savvy
Garnishing	Pasta and Rice Toppers	Soups On
Grilling	Potatoes	Strawberries
Healthy Holiday	Produce Under Pressure	Steaming
Jeopardy Fruit/Vegetable	Salad Essentials	Stir Fry
	Slow Cooking	None or not sure
21. I believe the lesson(s) received w	vith the <u>least</u> enthusiasm by part	icipants include:
Baking	Microwave Magic	Smoothies
Desserts	One-Dish Meals	Snacking Savvy
Garnishing	Pasta and Rice Toppers	Soups On
Grilling	Potatoes	Strawberries
Healthy Holiday	Produce Under Pressure	Steaming
Jeopardy Fruit/Vegetable	Salad Essentials	Stir Fry
	Slow Cooking	None or not sure
22. I am not sure I will ever try to pr	esent the following lesson(s):	x
Baking	Microwave Magic	Smoothies
Desserts	One-Dish Meals	Snacking Savvy
Garnishing	Pasta and Rice Toppers	Soups On
Grilling	Potatoes	Strawberries
Healthy Holiday	Produce Under Pressure	Steaming
Jeopardy Fruit/Vegetable	Salad Essentials	Stir Fry
	Slow Cooking	None or not sure
23. I have funded my Healthy Living Participation fee County agency money School support Donations	g A-Z presentations by (please cl	heck all those that apply):
At my own expense		
Other(s)		
24. Locations for presentations inclu- County Extension Office Fair Grounds Facility School Classroom Community Civic/Activit Church Senior Citizen Center Other		pply):

Agree 1 2 3 4 5 Disagree						
26. Obtaining adequate facilities for presentation of programs has been a problem. Agree 1 2 3 4 5 Disagree						
Additional Comments						

25. Obtaining adequate equipment for presentation of programs has been a problem.

Again, thank you very much for your time and prompt response!!



Marlene Sue Buck

Candidate for the Degree of

Master of Science

Thesis: Teaching Healthy Living A-Z: An Examination of Oklahoma State University Extension Educators Family and Consumer Sciences Nutrition, Health and Wellness Impact Team Members' Techniques, Audiences, Successes and Challenges.

Major Field: Agricultural Sciences, Communications and 4-H Youth Development

Biographical:

Personal Data: Born in Cherokee, Oklahoma, on March 29, 1949, daughter of Lyle and Doris Schanbacher. Married to husband Jim since December 28, 1969; parents to three daughters.

Education: Graduated from Lambert High School, Lambert, Oklahoma, rural Alfalfa County, in May 1967. Attended Northwestern State College, Alva, Oklahoma fall, 1967 – spring 1968; received Bachelor of Science degree in Family Relations and Child Development from Oklahoma State University, Stillwater, Oklahoma in May 1971. Attended Northwestern State University, Alva, Oklahoma, fall 1994 – spring 1995 for audited classes. Completed the Requirements for the Masters of Science degree at Oklahoma State University in May 2004.

Experience: Lived on a farm in Alfalfa County Oklahoma entire life, carrying out various farm-related responsibilities. Off-farm work included substitute teaching and catering. In 1994 became Program Assistant for Alfalfa County OSU Extension Service; advanced to Family and Consumer Sciences Extension Educator position August 1996, supervised Healthy Families Program in Alfalfa County three and a half years. Transferred to Grant County Extension Office December 1999, served in Family and Consumer Sciences/4-H Youth Development position until February 2004. Transferred to Garfield County Extension Office, currently serving as Family and Consumer Sciences/4-H Youth Development Educator.

Professional Associations: Phi Kappa Phi, OAE4-HA, OAEFCS, NEAFCS