PUBLIC HEALTH EDUCATION TO RURAL TEENS

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OVERVIEW

- FIELD EXPERIENCE
- HEALTH EDUCATION
- FIELD EXPERIENCE ACTION (LOGIC MODEL)
- REFLECTION
FIELD EXPERIENCE

- Field experience is a type of education strategy in which students engage in sharing information learned in the classroom into the community.
- A cost-effective means to promote healthy behaviors such as improved diet patterns, increased **physical activity**, obesity prevention, and **food safety** promotion.
- Infectious Diseases and Zoonoses
- Public Health Nutrition
HEALTH EDUCATION

- **Nutrition education**: helps to deliver health outcomes to the community.
- **Obstacle**: Because of the large population of the country, it is unrealistic to expect that a doctor or a health worker could reach every person and educate him about various health problems.
- **Rural areas**: lower incomes, less access to public healthcare.
- **Teens** have limitations due to development, vision, hearing and risk perception; more susceptible and vulnerable to injuries.
**FIELD EXPERIENCE & HEALTH EDUCATION**

- **Corporation**
  - Share nutrition information to community; learn through the evaluation of experience.

- **Solution**
  - Trained volunteers help educate people in rural areas about the basic issues affecting health.
  - They can further spread this knowledge in their own circles. The level of involvement of the people helps tackle various health problems through personal as well as community initiative.
LOGIC MODEL

Priorities

What I invest

Who I reach (participation)
What I do (activities)

Outputs

Short term
Long term

Outcomes
FIELD EXPERIENCE ACTION
-LOGIC MODEL(PRIORITIES)

❖ Learning objective:

- To increase my understanding of nutrition education for youth, and the structure of the U.S. public school system;
- To communicate effectively with youth, while respecting cultural diversity; recognize the needs and learning style of targeted audience;
- To experience program coordination and development for a specific population/organization.
FIELD EXPERIENCE ACTION
- LOGIC MODEL (PRIORITIES)

❖ Activities to be Performed:

- To develop an original nutrition education curriculum/mentor program for preteens and teens;
- To pilot-test three nutrition education lessons and three Chinese food culture lessons.

❖ Product:

- The development and publication of the curriculum.
FIELD EXPERIENCE ACTION - LOGIC MODEL \((PRIORITIES)\)

- Why plan to teach Chinese food culture?
  - 1st step:
    - **Culture**: an implicit theory of how to think, conditions one how to feel, and instructs one how to interpret the behavior of others and how to act.
    - **How to communicate**.
  - 2nd step:
    - **Chinese culture**:
    - ✓ As school requested
Why plan to teach Chinese food culture?

- One of the most influential countries both economically and politically, second biggest economy in the world, one-fifth of the world’s population, the Chinese is the largest single group of Asians in America.
- Advantage in job competition in terms of building a broad social network and help them to take their career forward to new heights.
FIELD EXPERIENCE ACTION - LOGIC MODEL (PRIORITIES)

- Why plan to teach Chinese food culture?
  - 3rd step:
    Chinese **food** culture
    - A much simpler way than a cultural overview.
    - Lao Tza, “Governing a great nation is like cooking a small fish.”
    Require seasoning & adjustment.
    - Teaching effectively
    - Nutrition related
FIELD EXPERIENCE ACTION
-LOGIC MODEL$(INPUTS)$

- **Time:**
  - Spring and Fall 2012
  - 240 hours as required

- **Money**
  - $50~ (rewards, gas)

- **Research base Materials**
  - Knowledge of nutrition and activity for communities in Kansas (KNACK)
  - Kansas State Research and Extension
Who I reach (participation)

- Riley county agency: Ginny Barnard, MPH
- Blue Valley high school- Randolph, Kansas.
- 1 of 5 high schools in the Blue Valley
- Achieved the Standard of Excellence in reading, mathematics, science, and social studies.
- Student body makeup is 55% male and 45% female, the minority enrollment is 4%.
Figure 1. Student Enrollment and breakdown of grade 9-12 by ethnic diversity.
Figure 2. The diversity of Economically- Disadvantaged Students

- Total Economically Disadvantaged: 27%
- Free Lunch Program: 13%
- Reduced-Price Lunch Program: 14%
FIELD EXPERIENCE ACTION
- LOGIC MODEL (OUTPUTS)

What I do (activities)

Who I reach

What I do

preparation

• Meetings
• Teaching materials

Application

• 11th grade, 10 students, 6 weeks,
• 1.5 hours per course

Feedback

• Advisor, students, teachers
• Personal experience

Development

• Curriculum
Chinese Food Culture and Healthy Eating

Dear Educator,

This curriculum is based on the field experience for my master’s degree of Public Health. The target students of Chapter 1 would be anyone interested in learning about the Chinese culture. Chapter 2 can be used with adolescents 12-15 years of age, but you can modify this chapter and make it more suitable for older students or adults.
Overview of Lessons

This curriculum consists of six lessons. Though the lessons can be taught independently, we strongly encourage teaching all six lessons.

Here is a brief overview of each lesson:

Chapter 1: Chinese Food Culture

Lesson 1- Influence on Food Choice

Lesson 1 aims to introduce the specific qualities associated with food and the diverse roles that food plays in Chinese culture. The course begins with looking at how food choices were influenced by the formation, development, and dissemination of Chinese culture in China. This topic will include dietary rules, social rules of etiquette and banqueting, and regional differences in cuisine.

Lesson 2-Table Manners

Lesson 2 introduces how the Chinese civilization develops formal orientation of etiquette thousand years ago. As table manners differ from country to country, it’s important to let students as foreigners be informed of some details so as to show their respects to a different culture.

Lesson 3- Cooking with Children

Lesson 3 offers educators some practical tips of getting children involved with food preparation and food safety. It will help students to receive the greatest benefit from the diverse cooking methods, help them understand the core spirit of Chinese cooking, and inspire students to cook the dishes with interest and enthusiasm.
Chapter 2: Healthy Eating

Lesson 4- Eating Breakfast Activity

Lesson 4 helps students understand the importance of eating breakfast. In addition to highlighting how to make breakfast healthy, students will share common breakfast foods, evaluate those foods and discuss how to improve the quality of their breakfast. Students will also look closely at what people have eaten for breakfast in China.

Lesson 5- Fruits and Vegetables

Lesson 5 is designed to help teach children to understand the important role of fruits and vegetables in keeping their bodies fit and healthy. It is about fun and easy ways to eat more, and identify the main nutrients of certain fruits and vegetables.

Lesson 6- Food Safety

Lesson 6 explains why food safety is important in maintaining health. It presents the basic concepts of what a food-borne illness is, it states ways to help prevent a food-borne illness from occurring, and it describes safe food handling procedures for every step throughout the food production process.
How to use this guide

Objectives
Each lesson begins with objectives, which are brief, clear statements of what the teacher will teach and what students will learn by the end of the lesson.

Procedure
The procedure provides step-by-step instructions for teaching each lesson. The blue text after each procedure number gives you the main idea and the black text below provides the details. The text in the procedure is consistent with the corresponding Power Points. Be creative and enhance the lessons to make them work for your class.

Lesson resources
These include interaction cues, PowerPoint, and handout for teachers. As appropriate, these resources that will help maximize your ability to effectively teach these lessons, give you enough to whet your appetite for further discussion, and prepare you for more exploration.
SAMPLE LESSON

Chapter 1: Chinese Food Culture

Lesson 3
Cooking with Kids

Who I reach
What I do

Outputs
SAMPLE LESSON

Who I reach

What I do

Objectives

Students will be able to:

• Identify the five tastes;
• Cook the authentic Chinese fried rice;
• Demonstrate the ability to swirl egg with chopsticks.

Procedure

1. Discussion

Introduction of Yangzhou Fried Rice

The origin of Name:
Yangzhou is a famous tourist city. Gardens such as the Shouxi Lake (slide background), He Park, and Wang’s Little Garden are all famous tourist attractions in Yangzhou. Poets love living or visiting there. The classic poems make Yangzhou more and more famous.
Five Tastes

2. Question

Sour, Sweet, Bitter, Salty
For a long time in the West, the four tastes given were simply bitterness, sourness, sweetness, and saltiness. It was thought that these four tastes covered every taste available. Recently, however, the taste umami, which has long been included in Eastern ideas of primary tastes, has been added to the discussion in the West.

Umami:
Umami is a loanword from the Japanese umami meaning "pleasant savory taste". It is the response to salts of glutamic acid — like monosodium glutamate (MSG) a flavor enhancer used in many processed foods and in many Asian dishes. Processed meats and cheeses (proteins) also contain glutamate.

3. Question

4. Tip
SAMPLE LESSON

Who I reach

What I do

Output:

Interaction Cues

1. **Discussion:**
   Have you tried or made Fried rice before?

2. **Question:**
   What are the five tastes?
   Most students can give the first four tastes, so we can explain the fifth taste - Umami.

3. **Question:**
   For some humans, the first encounter with umami?  A: breast milk

4. **Tip:**
   People don’t use MSG when cook egg, because same component of MSG is contained in egg.
SAMPLE LESSON

Yangzhou Fried Rice Recipe

TOTAL TIME: 30 min
Prep: 20 min
Cook: 10 min
YIELD: 4 to 6 servings

Ingredients

- 1 1/2 cups rice: cooked, cold rice (preferably precooked half to one day in advance)
- 4 tablespoons vegetable oil
- 1 cup fresh beans/peas
- 1 cup corn
- 1/4 cup chopped green onion
- 2 eggs: beaten
- 1 teaspoon salt
- 3 Chinese barbecued sausages
- 1/4 teaspoon vegetable oil

Optional:

- Soy sauce
- Black pepper
- Carrot
- Shrimp
- Onion

Who I reach

What I do
SAMPLE LESSON

Who I reach

What I do

Directions
1. Heat wok for 2 minutes. When the wok is hot, pour in vegetable oil
2. Pour in beaten eggs and scramble slightly
3. Get the egg out and repeat step 1
4. Put in cooled rice, stirring constantly for another 3 minutes
5. Mix in sausage, peas, corns and cook for 3 minutes
6. Mix in green onions and salt, stirring continuously until everything is blended evenly
7. Turn off heat, ready to serve

Nutritional Information
Amount per Serving Calories: 484 | Total Fat: 17.5g | Cholesterol: 199mg
Sample Lesson

Five Tastes

For a long time in the West, the four tastes given were simply:

- _________
- Soursness
- Sweetness
- Saltiness

What is the fifth one?
SAMPLE LESSON

Who I reach

What I do

LESSON 4
Eat Breakfast Activity

LESSON 5
Fruits and Vegetables

LESSON 6
Food Safety

Objectives

Students will be able to:

- Identify the benefits of eating breakfast;
- Discuss top breakfast for children;
- Identify one goal or action (individually or as a group) related to eating breakfast;
- Identify the suitable breakfast for morning exerciser.

- Discuss the benefits of fruits and vegetables in diet;
- Discuss preparation methods for vegetables;
- Identify the major nutrients of fruits and vegetables;
- Identify one goal or action (individually or as a group) related to eating breakfast.

- Define food safety;
- Discuss steps to keep food safety;
- Identify the factors cause food-borne illness.
FIELD EXPERIENCE ACTION - LOGIC MODEL \( (outcomes) \)

**Outcomes**

- **Audiences**
  - **Short term**: knowledge, attitude, skills, motivations.
  - **Long term**: change, choice, healthier eating.
FIELD EXPERIENCE ACTION
-LOGIC MODEL (outcomes)
FIELD EXPERIENCE ACTION LOGIC MODEL (OUTCOMES)

Myself

Short term

✓ Attitude: curiosity-advocation
✓ Knowledge: "To teach is to learn twice." – Joseph Joubert
Functional Foods for Chronic Disease Prevention

Science of Food

Nutrient Metabolism

Research experience

Public Health Nutrition
FIELD EXPERIENCE ACTION
-LOGIC MODEL (OUTCOMES)

Outcomes

* Myself

Short term

✓ Nutrient Epidemiology - writing and reviewing skills
✓ Statistics class - figures
✓ Seminar - public speaking

Long term
FIELD EXPERIENCE ACTION
-LOGIC MODEL (Outcomes)

- Myself

Long term
✓ Personalities: humble, patient
✓ Skills: communication, coordinating, research, presentation
FIELD EXPERIENCE ACTION - LOGIC MODEL (OUTCOMES)

Myself

Long term

✓ Interests:
- Education
- Chinese cuisine in America
- Chinese immigrants Dietary Pattern

Short term

Outcomes
FIELD EXPERIENCE ACTION
-LOGIC MODEL (OUTCOMES)

Outcomes

- Chinese immigrants Dietary Pattern
  - greater awareness, more knowledge about healthy foods – increase portion sizes, dined out more frequently, convenience foods, seven-food groups; decrease traditional Chinese foods and Chinese Dietary variety
  - higher education and income levels - larger increase in consumption frequency of grains, vegetables, and fruits.
  - resided longer- increase in vegetables, fats/sweets, and beverages.
  - better English proficiency- greater increase in grains, fruits, meat/meat alternatives, and fats/sweets.
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REFERENCES

- Lv N, Cason KL. Dietary pattern change and acculturation of Chinese Americans in Pennsylvania. Department of Food Science, 8L Borland Laboratory, The Pennsylvania State University.
REFERENCES

- Paul F. McCawley. The Logical Model for Program Planning and Evaluation.
- CIS1097. University of Idaho. 400 10-01.
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