

Instructional Plan Outline

I. Identification

- A. Names of presenters:** Kellie Henderson & Jennifer Looney Graduate Senior Coordinated Dietetic Students
Date: November 16th 2010
- B. Name of Organization:** Framingham State University Coordinated Program in Dietetics
Contact: Alison Doak. E-mail adoak1@framingham.edu
- C. Goal Statement:** To dispel the reputation of several foods that are misconceived as being “bad for you” and to promote their health benefits, when consumed in moderation; in order to improve the nutrition and health of the public.
- D. Presentation Title:** “Bad” Foods You Should Be Eating”
- E. Audience:**
- Undergrad and Graduate College Students at Framingham State University.
 - Framingham State University faculty and staff.
 - Age of typical undergraduate student 18-22.
 - Age of typical graduate student 23-40.
 - Age of typical professor 28-60.
 - English is their first language.
 - Majority of students are females.
 - Majority of FSU students are Caucasian Americans.
 - Education will vary however, most will have a high school degree or higher.

Assumptions:

- Average 6th grade reading level.
- Able to read and comprehend poster and information.
- High interest level of health, wellness and food.
- Are knowledgeable of the foods discussed in the presentation.
- Know what kinds of foods are considered healthy.
- Average consumption of “bad” foods is on a daily basis.
- Are not aware that these “bad” foods have health benefits associated with them if consumed in a moderate amounts.
- Knowledgeable of the USDA’s MyPyramid and its food groups.

Physical description of setting:

- Located on first floor main lobby in the Campus Center at Framingham State University.
- Large area where students have to walk through to get to the cafeteria.
- High traffic during lunch hours 11:30-1:30.
- Noisy
- Coffee shop located nearby with several tables and chairs where students sit and do homework or eat.

- Number of participants 2-5 at a time

F. Time Allotted: Audience is predicted to stay at interactive table for approximately 3-5 minutes.

II. Objectives: Performance and Learning

Learning Objectives:

After attending the session at the interactive table “Bad” Foods You Should Be Eating” and reviewing the brochure, participants will learn:

- 1) Six commonly labeled “bad” foods have health benefits if consumed in moderation.
- 2) The specific health benefits associated with these foods.
- 3) The appropriate portion size of these foods.
- 4) How often they should consume these foods.

Performance Objectives:

1. After participating in the interactive table “Bad’ Foods You Should Be Eating” and given a multiple choice question, 95% of the participants will be able to identify the correct portion size of peanut butter.
2. After participating in the interactive table “Bad Foods You Should Be Eating” and given a multiple choice question, 95% of the participants will be able to identify the correct health benefit associated with beef.

III. Content, Sequence, and Learning Activities:

A. Introduction:

- Capture the attention of students and faculty by asking questions related to the presentation topic, and inviting them to participate in the presentation, i.e. “Did you know dark chocolate is actually good for you? Come find out why!” or “Want to find out about “bad” foods you should be eating?”
- The poster has bold, large font and bright pictures of the six “bad” foods in the center. The “bad” foods are:
 - eggs
 - peanut butter
 - beef
 - potatoes
 - chocolate
 - alcohol
- Next to each photo will be a sentence labeled “myth” that will describe why the food is thought to be bad. On the outer left leaf of the poster will be the title “Portion Matters” and will include questions about the correct portion sizes for chocolate, wine and peanut butter. On the right leaf will be the title “Everything in Moderation”. This side will list nutrition information for eggs,

healthy ways to prepare potatoes, and give examples of lean cuts of beef. The food guide pyramid will also be posted here with the recommendation of 5-6 oz equivalents/day from the meat and beans group.

- Offer free food, dark chocolate pretzel truffles, as an incentive for people to come look at the poster.

B. Pre-Assessment:

Use the following informal pre-assessment questions:

- How many of you have heard that the foods on the poster are bad for you?
- Have you ever been told that these foods are not part of a healthy diet?
- Do you think these foods have health benefits and can be good for you when consumed in moderation?

C. Key Learning Activities:

1. Activity one: *Finding out the Truth*

Description: This interactive activity will provide participants with the truth about these mislabel “bad” foods. Participants will learn about specific health benefits associated with each food.

Directions:

1. In the center of the activity board are pictures of the six “bad” foods with “myth” as to why they are “bad” written above them.
2. Ask participants to pick out one “bad” food they want to learn more about.
3. Read the myth associated with the food they choose out loud.
4. Tell participant to remove the food picture and read out loud the truth (located on the back of the picture) about that food.
5. Discuss health benefits associated with the food, the importance of moderation and portion control and answer questions.
6. Move on to activity two: Portion Size Matters.

Peanut Butter

Myth: Peanut butter is super fattening

Truth: Peanut butter is high in fat but most of the fat is monounsaturated fats, which have been shown to decrease your “bad” LDL cholesterol.

Talking Points:

- Remember peanut butter is calorie dense, which means it is high in calories with most of the calories coming from fat
- 2 Tbsp has 190kcal, 16 g of fat (only 3 saturated fat)
- Most of the fat in peanut butter is monounsaturated which has been shown to improve your cholesterol profile by lowering your LDL which is your bad cholesterol. Having a low LDL decreases your risk for cardiovascular diseases
- Natural peanut butter will have more monounsaturated and polyunsaturated fats which are considered the good fats and less trans fats which are considered the bad fats

- Peanut butter has about 1 gram per Tbsp of fiber which helps regulate blood cholesterol and blood sugar.
- Great source of protein 2 Tbsp provides about 7 grams of protein. Protein is needed to build and repair muscles, which makes peanut butter a great post exercise snack.
- It also contains important vitamins and minerals such as vitamin E, niacin, iron, magnesium, potassium, copper and calcium.
- Vitamin E is an antioxidant that has been shown to reduce the risk of cancer and cardiovascular disease.
- Niacin, also known as vitamin B3, aids in the recovery of cell DNA damage thus protecting from certain diseases like, cancer.
- Iron is essential for the correct functioning of your red blood cells
- Calcium promotes healthy bones.
- Peanut butter also has potassium and diets rich in potassium reduce the risk of hypertension.

Chocolate

Myth: Chocolate is high in fat and sugar and tastes so good so it must be bad for you.

Truth: Dark chocolate contains flavonoids, which are water-soluble plant pigments that have health benefits such as lowering blood pressure.

Talking Points

- Chocolate is high in calories and fat, but about 1/3 of the fat is Oleic Acid which is a healthy fat.
- 5 pieces of Dove dark chocolate has 210 kcals, 13 g fat, 8 g saturated fat, and 19 g of sugar.
- Flavanols are the main type of flavonoid found in cocoa and chocolate.
- In addition to having antioxidant qualities, research indicates that flavanols have other positive influences on vascular health, such as lowering blood pressure and improving blood flow to the brain and heart, making blood platelets less sticky and less likely to clot
- It is important to remember that not all chocolate contains the same level of flavanols and many flavanols are lost during processing.
- Choosing chocolate that is less processed is the best way to get the highest level of flavonals.
- Choose dark chocolate over milk or white chocolate.
- It is important to remember that chocolate bars and candies are high in fat, sugar, and calories so moderation is the key.

Alcohol

Myth: Alcohol has no health benefits.

Truth: Moderate consumption of alcohol has been shown to reduce the risk of cardiovascular disease, stroke, and Alzheimer's disease. Studies have also found that moderate drinkers are less likely to develop type II diabetes. Keep in mind moderate alcohol consumption is necessary to see these health benefits

Talking Points:

- There are many health benefits associated with moderate alcohol consumption.
- Alcohol reduces the risk of developing heart disease, type II diabetes, and may lower your risk of developing gallstones and having a stroke.
- Alcohol increases HDL cholesterol which is the “good” cholesterol. The only other thing proven to increase HDL is exercise.
- Alcohol lowers LDL or the “lousy” cholesterol, decreases blood clotting, increases coronary artery blood flow, reduces blood pressure, reduces blood insulin levels and reduces harmful arterial plaque.
- Under U.S health guidelines, moderate drinking is defined as the following:
 - Healthy men 66 and older: a maximum of three drinks per occasion, or seven drinks a week
 - Healthy men 65 and younger: a maximum of four drinks per occasion, or 14 drinks a week
 - Healthy women: a maximum of three drinks per occasion, or seven drinks a week
- Examples of one drink include:
 - Beer: 12 ounces
 - Wine: 4-5 ounces
 - 80-proof distilled liquor: 1.5 ounces
 - 100-proof distilled liquor: 1 ounce
- Red wine has flavonoids which reduce the production of LDL cholesterol, boosts your HDL cholesterol and reduces blood clotting.
- Red wine contains resveratrol which is an antioxidant found in the skin of red grapes and may inhibit tumor development of some cancers, aids in the formation of nerve cells, which experts believe may be helpful in the treatment of neurological diseases like Alzheimer's and Parkinson's.
- Consuming one serving of red wine (4-5 oz) is enough to receive the health benefits.
- 4 oz of wine has about 100-120 kcals
- It is important to remember that alcohol has about 100-159 calories per servings and may be very high in calories in mixed drinks. For example, margaritas can contain about 400 calories.
- Drinking more than the recommended amount of alcohol can lead to negative effects such as: high blood pressure, obesity, stroke, breast cancer, and alcoholism.

Beef

Myth: Beef is full of saturated fat and cholesterol and is not part of a healthy diet.

Truth: Lean cuts of beef are low in fat and are a great source of protein and iron. Iron is an essential mineral for getting oxygen from your lungs to cells throughout your body.

Talking points:

- Choose lean cuts of beef such as sirloin, flank, and lean ground beef (show chart on right leaf of poster).
- There are 29 different “lean” cuts of beef. Beef is defined as lean if it has 10 g or less of fat and 4.5 g or less of saturated fat with 95 mg or less cholesterol per a 3.5 oz serving. Beef is defined as “extra lean” if it has less than 5 g fat, less than 2.5 g saturated fat, and less than 95 mg cholesterol per 3.5 oz serving.
- Choose meats with less visible “marbling” which is the fat you can see.
- The recommended serving from the meat and beans group in MyPyramid is 5-6oz/day. 3 oz is one serving of meat, which is about the size of the palm of your hand.

Eggs

Myth: Eating eggs is bad for your heart

Truth: Eggs are a good source of nutrients. One egg contains 6 grams of protein and some healthful unsaturated fats. Eggs are also a good source of choline, a vitamin which has been linked with preserving memory.

Talking points:

- The liver produces most of the body’s cholesterol, and so genetics have a greater impact on a person’s risk for high cholesterol than diet.
- One egg has 210 mg cholesterol and 5 g fat
- The American Heart Association (AHA) recommends cholesterol should be limited to 300 mg/day.
- The AHA previously recommended limiting consumption of eggs to 2-3/week, they no longer recommend this.
- The egg yolk is a good source of choline which is important for liver function, heart development in fetuses, and may reduce the risk of Alzheimer and Parkinson disease.
- The egg yolk is also a source of vitamin D and vitamin A
- The egg white is a “complete protein” because it has all eight of the essential amino acids. The egg white also provides 6 g of protein.
- Use two egg whites with one egg yolk to increase the volume without increasing the fat.

Potatoes:

Myth: Potatoes are high in carbohydrates and have very little nutritional value.

Truth: Potatoes are high in complex carbohydrates which supply your body with energy. The skin is rich in vitamin C, potassium, and fiber. Potatoes are also low in calories.

Talking points:

- Most of the vitamins and nutrients in a potato are in the skin, so eat baked potatoes with the skin and leave the skin on when you make mashed potatoes, baked French fries, or potato salad.
- Colorful potatoes may have added health benefits from the skin because they contain phytochemicals which are plant pigments that have an antioxidant effect.
- Try the recipe on the handout for a healthier alternative to French fries. One medium McDonald's French fry has 445 calories and 19 g fat, where the baked recipe only has 110 calories and 2 g fat
- Potatoes are also moderate in calories with 110-170 in one medium potato.
- It is what people add to potatoes that make them unhealthy and high in fat. Limit toppings like sour cream, butter, bacon bits and cheese. Try adding Greek yogurt as an alternative to sour cream or use olive oil and spices to add flavor instead.

2. Activity two: *Potion Size Matters!*

Description: Through this interactive activity participants will be able to determine the correct portion sizes of peanut butter, chocolate and alcohol.

Directions:

1. Ask participants to select one of the three foods located on left side of board.
2. After they select the food read the question on the board out loud.
3. Allow time for them to guess which portion size is correct.
4. Let participant flip up the "flip me" cards.
5. Have participant continue to guess until they have selected the correct portion size.
6. Follow these steps until all portions sizes for the three foods have been discussed.
7. Answer participant's questions.

Correct Portion Sizes:

- a. Peanut butter: 2 Tbsp
- b. Chocolate: 1-1.5 oz (5 pieces of mini Dove dark chocolate)
- c. Wine: 4-5 oz

Talking Points:

- In order to gain the benefits of these foods you need to eat them in moderation.
- Portion control is important so that you are not getting too many calories.

- Ask participants if they are surprised by the correct portion size.
- Ask participants if the correct portion size is about the amount they consume.
- Direct patients to check out the right leaf in order to get recommendations on how frequently to eat the other three “bad” foods, beef, potatoes and eggs.
- Use talking points from activity one if appropriate.

Notes:

- Give participants the brochure
- If anyone is not participating, try to engage them and get them to look at a different section of the board.
- If new participants arrive during the demo, allow them to participate, but then lead them afterwards to the board so that they can participate in the activities on the interactive board as well.
- Hand out samples of Dark Chocolate Pretzel Truffles.

D. Conclusion: After participants have concluded using the interactive board, ask if they have any other questions. Give participants the take home message, “While these foods may have a bad rep, they actually do have some health benefits, just remember to eat them in moderation to maintain a healthy weight and improve your health!” Give participants the raffle forms with survey questions on them. Ask them to fill out the form and personal information so that they could win the raffle prize, a dark chocolate gift basket.

IV Materials and Resources:

A. Research for Instruction Plan:

1. Hanson, D. "Alcohol and Health." *Alcohol Problems and Solutions*. <http://www2.potsdam.edu/hansondj/AlcoholAndHealth.html>. Accessed 11/4/2010.
2. American Egg Board. <http://www.aeb.org/retailers/nutrition-facts>. Accessed 11/4/2010.
3. Micco, N. “Bad’ Foods You Should be Eating” *EatingWell*. http://www.eatingwell.com/nutrition_health/nutrition_news_information/bad_foods_you_should_be_eating. Accessed on 10/14/2010.

4. Cleveland Clinic. "The Sweet Truth About Chocolate and Your Heart." <http://my.clevelandclinic.org/heart/prevention/nutrition/chocolate.aspx>. Accessed 11/4/10.
5. Mayo Clinic. "Alcohol use: If you drink keep it in moderation". <http://www.mayoclinic.com/health/alcohol/SC00024>. Accessed on 11/3/10.
6. Peanut Butter. Spreading American's most loved spread. "Health Benefits of Peanut Butter". <http://peanut-butter.org/peanut-butter/Health+Benefits+of+Peanut+Butter> Accessed on 11/2/10.
7. American Heart Association. www.Americanheart.org. Accessed on 10/14/2010.
8. Lean Cuts of Beef. <http://www.beefitswhatsfordinner.com> . Accessed on 11/3/2010
9. Healthy Potato French Fry Recipe. <http://allrecipes.com//Recipe/baked-french-fries-ii/Detail.aspx>. Accessed on 11/3/2010
10. MyPyramid. www.mypyramid.gov . Accessed on 11/4/2010.

B. Materials needed for presenters:

- Tri-fold poster board
- Container for evaluation forms
- 75 samples of dark chocolate truffles
- Sign that states "contains nuts"
- Dark Chocolate Basket for raffle prize
- Napkins
- 75 copies of brochures
- Healthy baked potato French fry recipe handout
- Three 6 oz plastic wine glasses filled with red jell-o (1=2oz, 1=4oz, 1=6oz) with small signs attached to wine glass indicating how many oz is in the glass
- Evaluation forms
- Pencils
- Table cloth

IV. Performance Evaluation:

Formal evaluative tools: Raffle questionnaires will be accessed to formally evaluate how well the participants fulfilled our objectives. The results will determine if the following objections were met:

- 1.) 95% of participants were able to correctly identify the correct portion size of peanut butter on the evaluation form.
- 2.) 95% of participants were able to correctly identify the correct “truth” associated with the health benefit of beef on the evaluation form.

“Bad” Foods You Should Be Eating

Please take a moment to answer the following questions and you will be entered in a raffle to win a dark chocolate gift basket!

1. What is the correct portion size for Peanut Butter?
a. 1 tbsp b. 4 tbsp c. 3 tbsp d. 2 tbsp

2. One health benefit of beef is that it:
a. Is a good source of iron
b. Has healthy omega 3's
c. Is a good source of fiber
d. Is fat free

3. Were the presenter's knowledgeable about the topic? Yes No somewhat

4. Did the presenters speak clearly? Yes No somewhat

Please fill out the information below to be entered into our raffle.

Name: _____ Phone Number: _____

E-mail: _____

Thank-you for your participation!

Answers (not shown on the form)

1. d
2. a

Informal evaluative tools:

To informally evaluate how well participants met performance objectives the presenters will observe and analyze the following things during the presentation:

- Note any questions participants ask and the number of questions asked.
- Evaluate how interested the participants seem and degree of interaction.
- Assess facial expressions for understanding or confusion.

B. Instructional strengths and weaknesses**Formal Evaluative Tools:**

To formally evaluate instructional strengths and weaknesses the following questions will be asked on the evaluation form:

1. Were the presenter's knowledgeable about the topic?
2. Did the presenters speak clearly?

The answers of "yes", "no", and "somewhat" will be tallied to assess overall strengths and weakness of the presenters.

Informal Evaluative Tools:

Facial expression, body language and level of interaction will be used to assess instructional strengths and weaknesses. The following questions will be answered after these observations are made:

1. Did participants show interest in the information given, by staying to listen to the presentation and interact with the presenters, indicating they felt the presenters were knowledgeable of the topic?
2. Did the participant's facial expressions and enthusiasm indicate that they enjoyed the activities?

C. Recommended changes overall

Presenters created the following questions before the fair to reflect upon when the event was over:

1. What changes would be made if this was presented again?
2. Were the evaluative questions on the raffle too easy for participants?
3. Was the information presented at the right educational level? Or was it too in depth or too simple for participants?

D. Evaluation write-up**1. Performance Evaluation:****Formal:**

After the fair the results of the evaluation form were tallied. A total of 56 participants filled out evaluation forms.

Objective One:

- Question one on the evaluation form correlates with learning objective three: participants will learn the appropriate portion size of these foods and performance objective one: After participating in the interactive table “Bad’ Foods You Should Be Eating” and given a multiple choice question 95% of the participants will be able to identify the correct portion size of peanut butter.
- Results show that all 56 participants or 100% got this answer right. This exceeded our goal of 95%. This is very positive feedback however; one concern is that the majority of the participants are nutrition students at Framingham State University and already knew the correct portion size, without having to participate in the activity.

Objective Two:

- Question two on the evaluation form correlates with learning objectives one and two:
 - Participants will learn six commonly labeled “bad” foods have health benefits if consumed in moderation
 - Participants will learn the specific health benefits associated with these foods.
- Question two also correlated with performance objective two: After participating in the interactive table “Bad Foods You Should Be Eating” and given a multiple choice questions 95% of the participants will be able to identify the correct health benefit associated with beef.
- Results show that 52 of the 56 participants answered this question correctly.
- Two participants responded incorrectly to this question, both then answered the questions pertaining to the presenters, circling “yes” that the presenters were clear and knowledgeable.
- Two other participants only answered question one and did not answer question two, nor did they answer any of the questions about the presenters. These last two participants may not have known the answer to the second question or just wanted to fill out the evaluation form in order to enter to win the chocolate basket.
- The goal that 95% of participants would answer this question correctly was not met.
- Only 92% of the participants answered the second question correctly.
- We believe the second question was fair and that the information was given in the presentation, but that the goal of 95% is too high for this objective.

Informal:

One method we used to informally evaluate how participants met our objectives was by noting any questions participants asked and the number of questions asked. We found participants were very interactive in both activities and asked questions related to their own eating habits and health. This was very clear for objective one, with participants telling us how much wine or chocolate they tend to consume and then asking questions related to servings per week. Many participants shared their feelings about the “bad” food for example if they enjoyed eating it and how often they tend to eat it. Participants asked questions about the health benefits associated with the foods, which indicated that they did not have much prior knowledge about these benefits and that they were interested.

A second informal method we used to evaluate how participants met our objectives was by their degree of interaction. Participants seemed to really enjoy both activities pointing to the board and asking what the health benefits to some of their favorite “bad” foods are, fulfilling learning objective two. Many participants removed the food pictures themselves to read the truth which showed their high level of interest. We also looked at participants facial expressions to assess understanding or confusion. Participants were frequently smiling and showed pleasantly shocked expressions by some of the correct portion sizes, particularly for wine and chocolate. Participants also came closer and huddled together to read the truths on the back of the foods after we would remove them from the board, also indicating a high level of interest.

2. Instructional Strength and Weaknesses**Formal:**

To formally evaluate the instructional plan and instructor’s performance we asked two questions on the evaluation form:

1. Were the presenters clear?
2. Were the presenters knowledgeable?

- Fifty four of the 56 participants answered yes to both questions. Two participants only answered the first question on the evaluation form and did not respond to the three remaining questions.
- This positive feedback indicates that the majority of participants felt that we spoke clearly, explained information effectively and were knowledgeable about the topic. Particularly since no participants responded “no”, we feel the two participants who did not respond to the rest of the raffle questions may have been in a rush or wished only to enter into the raffle for the chocolate basket prize.

Informal:

To informally evaluate our instructional strengths and weaknesses, we observed participants interest level in the information given, whether they stayed to listen to the presentation and if they interacted with the presenters. Participants seemed very interested in the presentation and stayed to listen to it in its entirety. New participants would also be stopped out of interest as they passed by and would stay to listen to the rest of the presentation and interact in the activities. We felt this indicated we were giving participants information they were interested in and in a clear and informative manner. We also observed to see if participants enjoyed the activities, which they clearly did as many complemented on our board and smiled and laughed while they participated in the activities.

C. Recommendations for changes overall:

The following questions were created before the fair to reflect upon when the event was over:

1. What changes would be made if this was presented again?

First and foremost, we found our sample chocolate peanut butter truffles, were very popular and we ran out of them before the end of the presentation. We had only prepared 60 and feel if it were to be presented again preparing 75-100 would be more appropriate. Secondly we also ran out of all 75 brochures before the end of the presentation, increasing this to 75-100 would also be appropriate. We found that some participants were mostly interested in only some of the six foods such as chocolate and alcohol, and not all of them. However, we found it was more effective in continuing to present all the information in order to keep attracting new participants, rather than just stopping after one or two foods was talked about. An incentive for participants to stay for the entire presentation could be to tell them that in order to win the raffle prize not only must they answer ALL questions on the evaluation form they must answer them all correctly.

2. Were the evaluative questions on the raffle too easy for participants?

We were afraid the raffle questions would be too easy for participants, especially for any participants who were in the nutrition major at Framingham State University. However, two participants did not answer the second question correctly and two did not answer it at all. This could indicate they did not know the answer to the second question and thus it was challenging. The first question on peanut butter may have been too easy, but during the activity many participants guessed it was only one tablespoon, indicating they did not previously know the correct answer. Therefore we feel the raffle questions were fair and appropriate.

3. Was the information presented at the right educational level? Or was it too in depth or too simple for participants?

We were also concerned that the information presented may be too simple or in depth for participants. We often started out with simple information, that was easily understandable, and if participants indicated they understood, we were able to go more in depth by explaining, for example, what flavanols are and what physiological impact they have in the body. This was a good approach to test to see if the information was at an appropriate educational level. We wanted to present information in a readily understandable language and format. Based on the evaluation results we feel we were able to accomplish this.