Nutrition Facts Label Instructional Module

ETEC 603
Spring 2009

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Content Analysis Report

Goal:

Learners will be able to determine sodium content from a nutrition facts label and compare intake to establish standards.

Excess sodium intake causes many health problems.

- People do not regulate sodium intake
- Sodium is common in many foods

Frito-Lay's Tostitos Corn Chips:

Nutrition Facts

Serving Size 1 oz. (28g/About 24 chips)
Servings Per Container 13

Amount Per Serving
Calories 140 Calories from Fat 70

	% Daily Value*
Total Fat 8g	12%
Saturated Fat 1g	5%
Polyunsaturated Fat 4.5g	
Monounsaturated Fat 2g	
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 110g	5%
Total Carbohydrate 18g	6%
Dietary Fiber 1g	4%
Sugars 0g	
Protein 2g	

Vitamin A 0%	•	Vitamin C 0%
Calcium 2%	•	Iron 2%
Vitamin E 4%	•	Thiamin 2%
Niacin 2%	•	Vitamin B_6 4%
Phosphorus 4%	•	Magnesium 4%

* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300mg	375g
Dietary Fiber		25g	30g

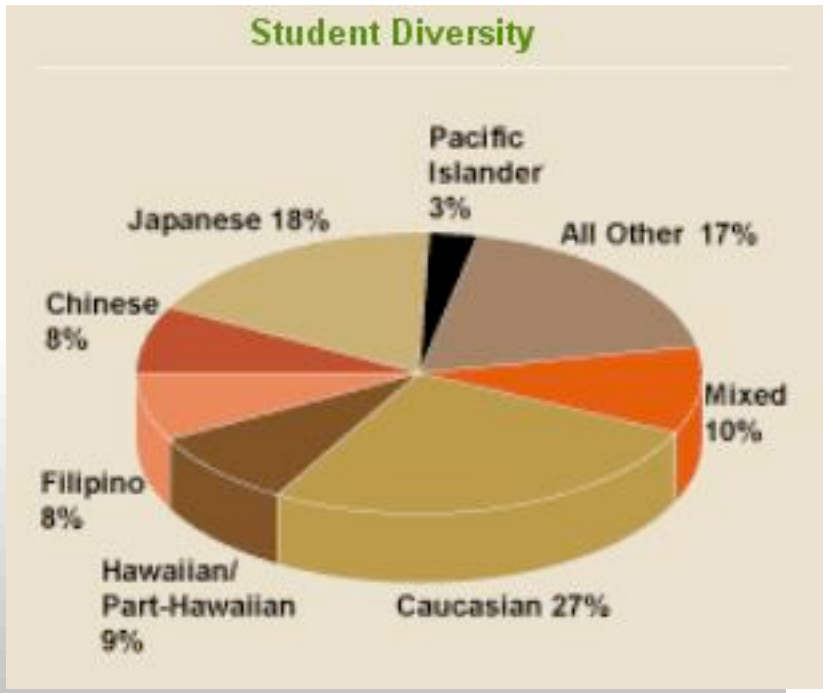
Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

Content Analysis Report

Target Population:

Learners at UH-Manoa

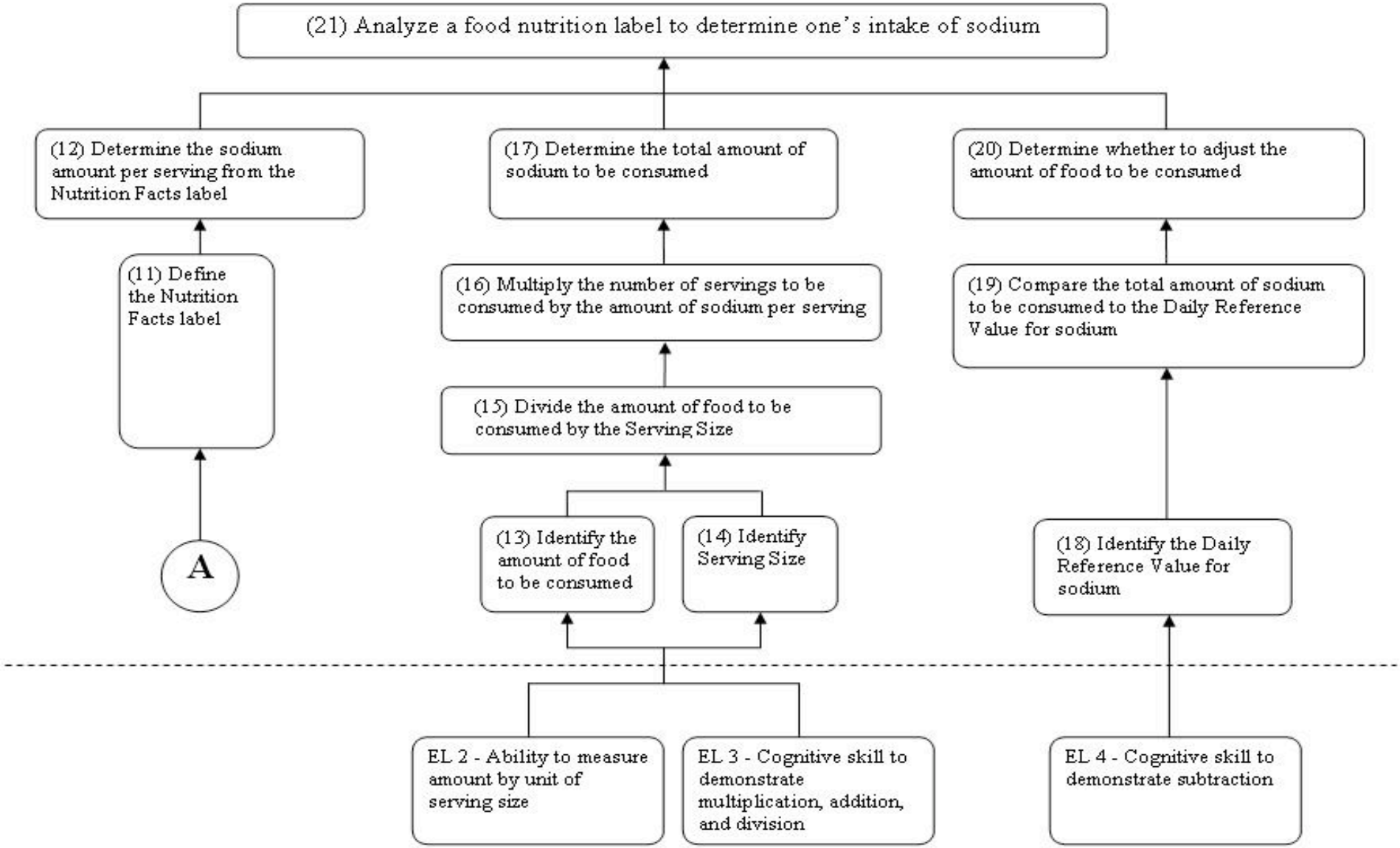
- Approx. 20,000 students
- Multi-ethnic
- Typically,18-50 years old
- Able to or possess:
  - obtain/apply information
  - basic math concepts and apply formulas
  - basic psychomotor skills



source: http://www.hawaii.edu/campuses/manoa.html

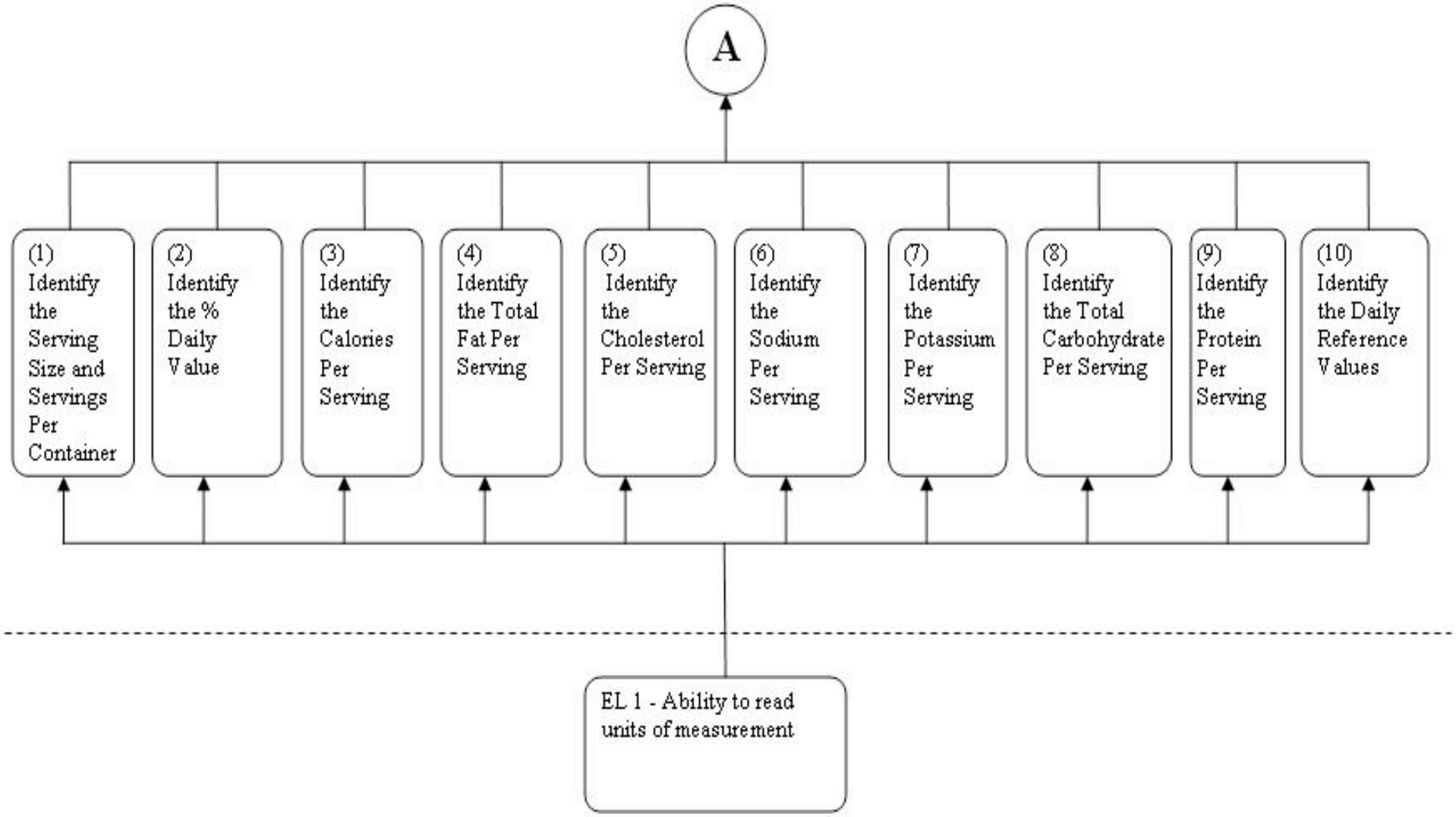
Content Analysis Report

Instructional Hierarchy:



Content Analysis Report

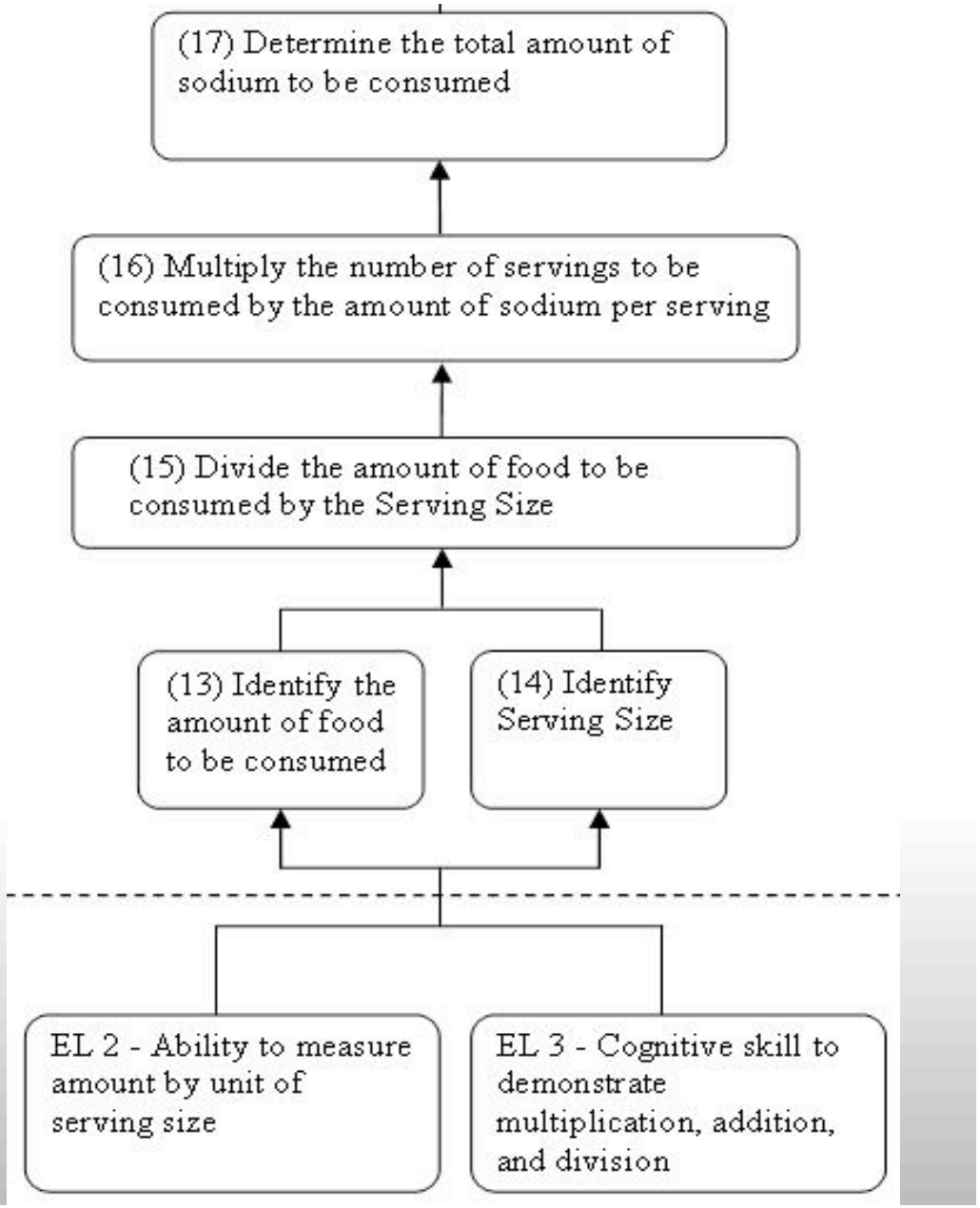
Instructional Hierarchy:



Content Analysis Report

Instructional Hierarchy for Cluster #2:

Determine the total amount of sodium to be consumed



Content Analysis Report

Cluster 2 Performance Objectives:

13	Identify the amount of food to be consumed	Given the food selected, the learner will identify the amount of food to be consumed
14	Identify the serving size from the Nutrition Facts label	Given a list of components from a Nutrition Facts label, the learner will accurately identify the Serving Size
15	Divide the amount of food to be consumed by the Serving Size	Given a list of four choices, the learner will identify the amount of food to be consumed in the units of measurement noted by the serving size
16	Multiply the number of servings to be consumed by the amount of sodium per serving	Given a list of four choices, the learner will select the correct solution from an equation that multiplies the number of servings to be consumed by the amount of sodium per serving
17	Determine the total amount of sodium to be consumed	Given an measurable portion of food and its Nutrition Facts label, the learner will correctly select the total amount of sodium to be consumed

Content Analysis Report

Instructional Strategy -
Gagne's Nine Events of Instruction

1. Gain Attention - Mention various sources of sodium

2. Inform Learners of the Objective - Describe the purpose and process of module

3. Stimulate Recall - Present images and questions about identifying sodium on a nutrition facts label

4. Present Stimulus Materials - Present relative information throughout the module steps

5. Provide Learner Guidance - Provide images, examples, rules and formulas for each module step

Content Analysis Report

Instructional Strategy – Gagne's Nine Events of Instruction

6. Elicit Performance - Provide practice tests

7. Provide Feedback - Feedback is provided with the practice tests

8. Assess Performance - Provide post test

9. Enhance Retention and Transfer - Daily opportunities to apply their knowledge to track their intake of sodium as a way to promote a health-conscious lifestyle.

Instructional Module

Prototype of Module 2: Determining the Total Amount of Sodium to Be Consumed

- Pretest
- Pretest Key and Feedback
- Introduction
- 5 Sections
  - Objectives
  - Practice Test with Key and Feedback
- Post Test
- Post Test Key and Feedback

Instructional Module

GREAT JOB SO FAR!

YOU HAVE STEPPED UP

TO THE CHALLENGE...

TO TAKE A

CLOSER

LOOK AT

SODIUM

Instructional Module

Design Feature:

Gain Attention

Did you know?

...1 small package of Crunchy Cheetos (2oz) contains 590 mg of sodium

...1 Microwave Singles cup of Hamburger Helper contains 620 mg of sodium

...2 cups of No Bean Zippy's Chili contains 1320 mg of sodium

…1 serving of Libby's Canned Corn Beef Hash contains 490 mg of sodium

…2 oz. (1/6 of a can) of Hormel Spam Lite contains 580 mg of sodium

In the first module, you learned about the Nutritional Facts Label and locating the amount of sodium per serving from the label.

In this module, you will learn how to determine the total amount of sodium you consume from food.

How much sodium do you consume?

Instructional Module

Design Feature:

Inform Learners of Objective

Section 1: How Much Food Will I Be Consuming ?

In this lesson, you will learn to identify the amount of food you will be consuming by unit size.

At the end of the lesson, you will be able to identify the amount of food you will be consuming in the same unit of measurement as that used in the serving size listed on the Nutrition Facts Label.

Instructional Module

Design Feature:

Provide Guidance

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Example

Non-Example

Remember

Instructional Module

Design Feature:

- Pretest and practice tests utilize graphics and text

- Accommodates various learning styles

Which of the following is a serving size?

A.

Section 1: Practice Test

1. **Which of the following food servings sizes best describes the amount of food consumed?**

   A. Half of a potato chip
   B. 1-1/2 cups of rice
   C. 1 plate of potato salad
   D. 2 scoops of potato salad

Instructional Module

Design Features:

...congratulatory messages between sections...

CONGRATULATIONS!

You have successfully completed Section 4, "Okay, So How Much Sodium Am I Consuming?"

You are now ready to continue on to Section 5, "I Can Do This!"

Instructional Module

Design Features:

Conclusion to enhance retention and transfer

Way to go Nutrition Facts Label Reader!!

You're ready to move on to Module 3!

In Module 1, you learned about the Nutritional Facts Label and locating the amount of sodium per serving from the label.

You learned that excess sodium intake can lead to serious health problems such as heart attack, stroke, heart failure, and kidney failure. Although most people are aware of that, many people do not take adequate steps to regulate their sodium intake.

In this module, you learned how to determine the total amount of sodium you consume from food using a Nutrition Facts Label.

Instructional Module

Design Features:

Conclusion to enhance retention and transfer, then introduce next module

Sodium comes from many food sources in your diet, but just learning to use a Nutrition Facts Label to determine sodium intake is a major step I helping you make better food choices, and in turn, minimize your risk of serious health problems.

In Module 3, you will learn how to determine whether to adjust the amount of food consumed according to sodium intake. You're already off to a great healthy start!!

Formative Evaluation

One on one evaluations:

- 20-30 minutes total
- quiet, comfortable, indoor settings
- conducted total of four, with target group members
- notes taken during sessions by evaluators

Formative Evaluation

Gathering Feedback

Post interview included evaluation questions compiled using Google Docs form

The pace of instruction was comfortable for me *
Please rank your answers 1 strongly disagree, 2 disagree, 3 Neither Agree nor Disagree, 4 Agree, 5 Strongly Agree

1 2 3 4 5

Strongly Disagree ○ ○ ○ ○ ○ Strongly Agree

The pace of instruction was comfortable for me

1Strongly - Disagree	**0**	0%
2	**0**	0%
3	**0**	0%
4	**2**	50%
5Strongly - Agree	**2**	50%

Formative Evaluation

Evaluation of Nutritional Labels Module Prototype

Thank you for taking the time to work through our module. May we please ask you to respond to the following so that we can continue to make improvements to our lesson.

* Required

I was not intimidated by the pretest, regardless of how I scored *
Please rank your answers 1 strongly disagree, 2 disagree, 3 Neither Agree nor Disagree, 4 Agree, 5 Strongly Agree

1 2 3 4 5

Strongly Disagree ○ ○ ○ ○ ○ Strongly Agree

The lesson succeeded in gaining my attention and interest at the start *
Please rank your answers 1 strongly disagree, 2 disagree, 3 Neither Agree nor Disagree, 4 Agree, 5 Strongly Agree

1 2 3 4 5

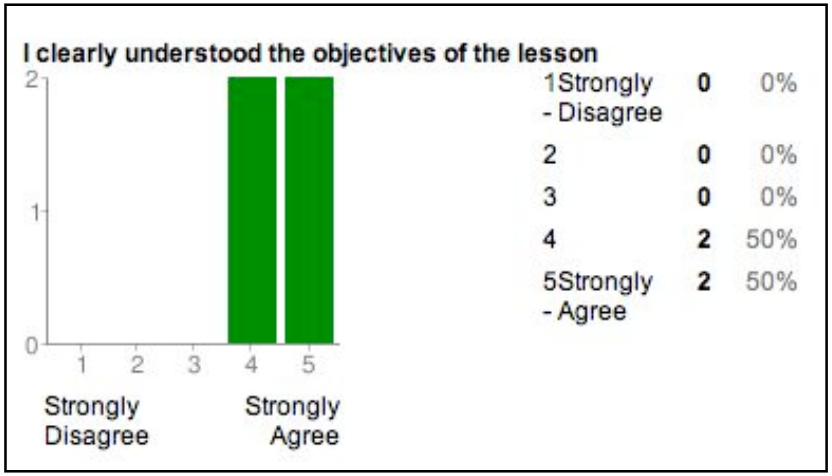
Strongly Disagree ○ ○ ○ ○ ○ Strongly Agree

I clearly understood the objectives of the lesson *
Please rank your answers 1 strongly disagree, 2 disagree, 3 Neither Agree nor Disagree, 4 Agree, 5 Strongly Agree

1 2 3 4 5

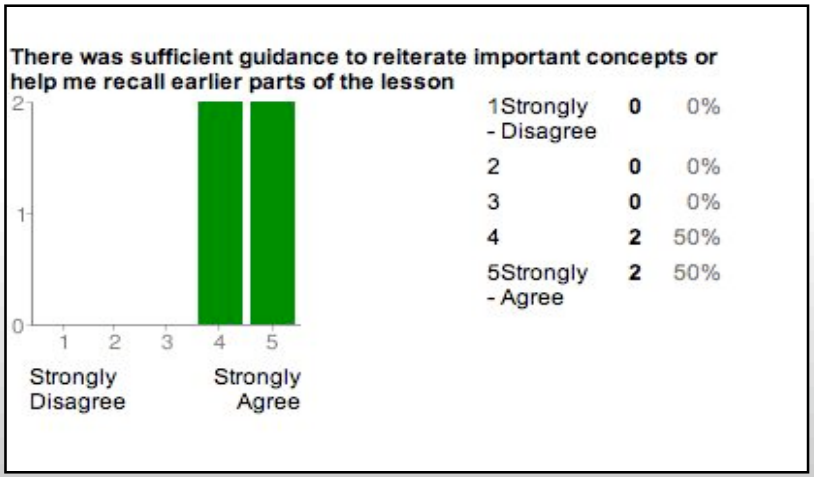
Strongly Disagree ○ ○ ○ ○ ○ Strongly Agree

I could easily relate the lesson to prior experiences in my life *
Please rank your answers 1 strongly disagree, 2 disagree, 3 Neither Agree nor Disagree, 4 Agree, 5 Strongly Agree



I clearly understood the objectives of the lesson

1Strongly - Disagree	**0**	0%
2	**0**	0%
3	**0**	0%
4	**2**	50%
5Strongly - Agree	**2**	50%



There was sufficient guidance to reiterate important concepts or help me recall earlier parts of the lesson

1Strongly - Disagree	**0**	0%
2	**0**	0%
3	**0**	0%
4	**2**	50%
5Strongly - Agree	**2**	50%

Formative Evaluation

What Worked?

- Post-test results, 100% by all, indicated success in attaining the objectives

- Consistent positive responses for pacing and feedback, understanding of objectives, guidance, use of graphics

- All test participants planned to use what was learned

Formative Evaluation

What Did Not Work?

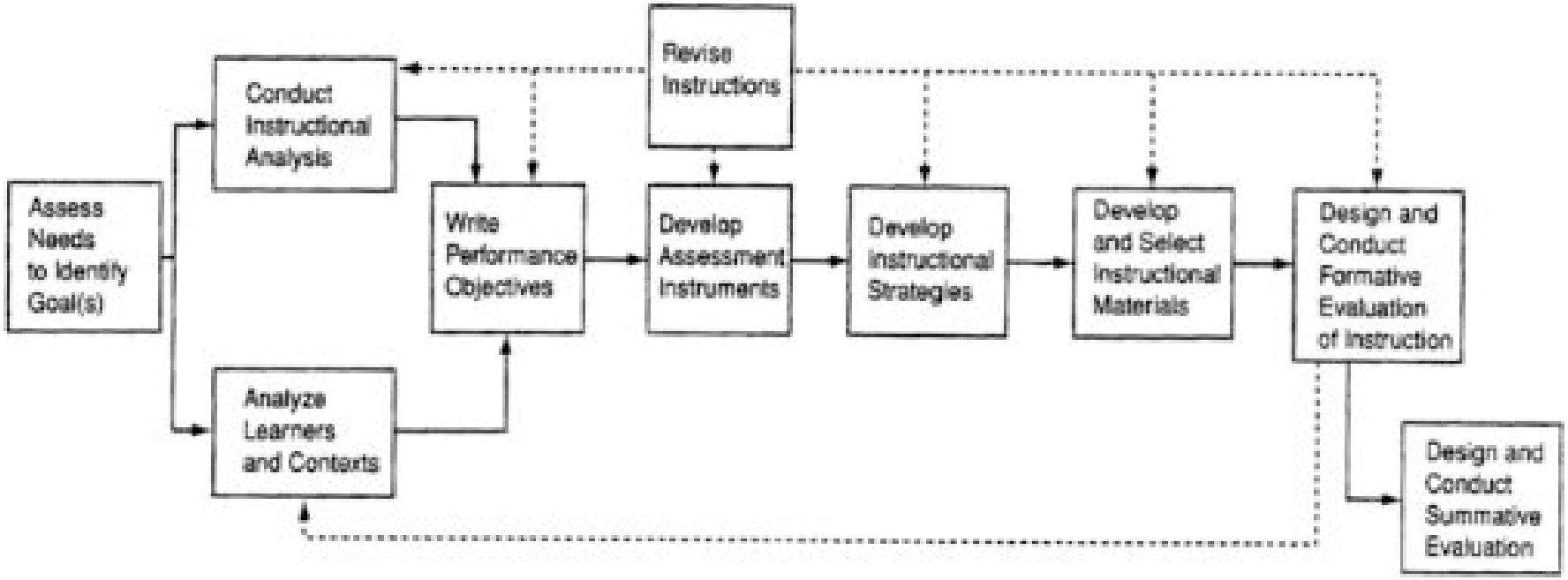
Suitability of instructional module for target population

- Pre-test - 1 scored 5 out of 5, 3 scored 4 out of 5
- Post-test - scores close, 5 scored 5 out of 5
- Feedback referred to redundancy or overly-simplified examples

This instructional module may be more suitable for different target group and comprehension level, such as high school health class rather than a higher education audience.

Formative Evaluation

What we would always do?



- Use established ID process to develop and design lessons
- Dick & Carey provides comprehensive approach!

Formative Evaluation

What we would do next time?

- Aim for an approach that is more engaging

- Change the target group to high school students, such as a high school health class

Formative Evaluation

If we had lots of time and money?

- Work with an SME to enhance content quality
- Take time to determine appropriate target audience and get more feedback
- Use money
  - to conduct F2F work sessions
  - to gain attention by providing food during evaluation sessions or tokens of appreciation for evaluators
  - to purchase use of exceptional graphics

Mahalo!

Questions?

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