Healthy Plate:
Consuming Balanced Meals as a Nutritional Strategy to Type II Diabetes Prevention

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Instructional Design Project
Educational Technology
University of Hawaii at Manoa
TCC 2011 Worldwide Online Conference
About Frank

• Born and raised in Wahiawa, O‘ahu
• BS in Exercise Science and Health Management
• Worked as Health and Wellness Consultant for almost 3 years
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Why Diabetes?

Poll Question: How many of you have family members that have diabetes (type I or type II)?
Diabetes Outlook

• 2011 National Diabetes Fact Sheet (2010 data)
  – 25.8 million people in the US are affected by diabetes (8.3% of total population)
  – Of the people affected, 26.9% (both diagnosed and undiagnosed) are ages 65 and over
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  – 72,000 to 100,000 people have diabetes
  – Of these numbers, 25,000 or more are undiagnosed
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Diabetes Outlook

• Lifestyle changes are keys to diabetes prevention
  – Exercise
  – Nutrition
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Purpose of Study

• Was to develop and evaluate a web-based instructional module on type II diabetes mellitus prevention through the consumption of balanced meals for 30-55 year old Hawaii residents.
Quiz

• Type II Diabetes Mellitus is a chronic disease in which the body
  a. is in the state of catabolism.
  b. does not produce insulin.
  c. is insulin resistant.
  d. produces enough insulin.
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- Hawaii residents 30 to 55 years of age
- Does not have diabetes
- English speaking
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• Must have some familiarity with using an Internet browser
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Methodology

• Web-based instructional module
• Introduced learner the concept of consuming balanced meals
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- Gagne’s Nine Events of Learning
- Strong emphasis on visual design and ease of use navigation
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Aloha! Welcome to Healthy Plate: A Nutritional Strategy to Type II Diabetes Prevention. This is an effective way to learn how to create balanced meals and make them part of anyone's lifestyle.

The ideas and methods of Healthy Plate: A Nutritional Strategy to Type II Diabetes Prevention are derived from the principals recommended by the American Diabetes Association. This web-based tutorial is targeted for Hawaii residents ages 30-55 and are non-diabetic. Adults ages 18-29 who are willing to improve their nutrition may also benefit from this tutorial.

Begin Tutorial
Content Breakdown

• 5 Units
  – Understanding Type II Diabetes
  – About Balanced Meals
  – Using the Plate Method
  – Completing Your Balanced Meals
  – Putting it All Together

Now that you learned how to put together a balanced meal, we will shift our focus on the Nutrition Facts label and recap on the things we covered. Like all skills you have learned, putting together a balanced meal will take practice. Once the skill is learned and you are committed to making lifestyle changes, your nutrition habits will come naturally.
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- Review at end of section
Module Features

- Easy-to-use navigation
- Easy to read text
- Images
- Embedded videos

In the last unit, you have learned how to start a balanced meal with the plate method. In this unit, we are going to complete our meal with a few more food items.
Module Features

- Easy-to-use navigation
- Easy to read text
- Images
- Embedded videos

3.2: Choosing Your Plate

Choosing the correct **plate size** is crucial in the plate method. Using a **8-9 inch plate** works effectively instead of a 11-12 inch plate. It is all about portion control and getting your body weight down to your recommended weight as recommended by your physician in order to lessen your risk for diabetes.
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Video

Click on video for further explanation on the plate method
Evaluation

- Demographic Survey
- Pre- and Post-test
Evaluation

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Evaluation

• Attitudinal Survey
  – 14 Likert-scale items from John Keller’s Instructional Materials Motivation Survey (IMMS)
  – 4 Categories
    – Attention
    – Relevance
    – Confidence
    – Satisfaction
Evaluation

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• Open Ended Questions
  – What do you like about the module?
  – What would you like to see improved?
  – How has this module affected your attitude about nutrition & diabetes prevention
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- 20 completed module
  - Average age 35 (53 as oldest)
  - 6 participants were between 25-29
  - 35% male and 65% female
  - 18 reside on Oahu, while 2 are former residents residing on mainland US
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• Pre-test = 82.7%
• Post-test = 96.3%
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Individual Test Scores

Score

Pre-test
Post-test

Participant

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
12

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Group Motivation After Completing Module

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• What would you like to see improved?
  *It does not need any improvements.*

• How has this module affected your attitude about nutrition & diabetes prevention?
  *I learned about the plate method and concepts in the module and were not difficult to do.*
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- Incorporate more multimedia objects
- Include more of the uneducated
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Conclusion

Based on the results, Healthy Plate web-based module is shown favorable in informing and motivating learners to improve their lifestyle for the prevention of diabetes.
Questions?
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Healthy Plate Tutorial:
http://waterwaysmedia.com/healthyplate