

Student Research

Learnomega3rd: A Website Design Streamlining Access to Online Resources Useful for Answering Dietitian's Omega-3 Fatty Acids Questions

Martha M. Valverde, PhD, MPH, RD; doctoral graduate of the University of Nebraska – Lincoln

Current research with technology and learning has shifted from an outcomes based approach, learning from media, to a process based approach, learning with media. Learning with media involves, "developing technology to support and optimize thinking, learning, and teaching processes."⁽¹⁾

The focus of this research project was to provide registered dietitians with evidenced based nutrition education in the area of omega-3 fatty acids in their workplace setting. A preliminary review of current online omega-3 fatty acids nutrition education resources available was conducted by the researcher. Findings revealed several quality resources available, however with the breadth of information needed to adequately address omega-3 fatty acids and their contributions to health, it was necessary to conduct further research with the dietitian audience to identify which resources are the most useful in answering their specific questions on this topic.

The Learning Paradigm and Learner Centered Paradigm^(2,3) were selected to provide an educational framework for the development and testing of research tools used for this web-based approach. These paradigms focus on the learner, their interests, and needs as the driving force for development. The goal was to develop question-based navigational tools which help the learners find answers to their immediate omega-3 fatty acids and health related questions in their worksite within a satisfactory time frame.

Qualitative phenomenology research methods⁽⁴⁾ were used with selected

registered dietitians from a Midwestern State Dietetic listing to explore the phenomenon, "How dietitians use online information in the workplace, what they consider effective online communications and knowing what influences their decision making behaviors around omega-3 fatty acids." Key themes identified and used in Learnomega3rd website content development and design included: a question-based learning approach, adaptability of educational materials for multiple audiences, and multimedia applications allowing for links to omega-3 websites, resources, and current published research articles.⁽⁵⁾

Quantitative online survey research methods and content analysis research methods^(6,7) were used to evaluate the Learnomega3rd website tool effectiveness for nutrition education of dietitians in their work setting. Content analysis of participant responses identified the depth, breadth, and frequency of current omega-3 fatty acids questions to be answered. Descriptive analysis identified the level of satisfaction with the time participants needed to find their answers.

Online survey findings⁽⁸⁾ show the educational website tool met and exceeded research participant (N=55) expectations in five out of six areas: informative, relevant, useful, credible, and professional. Forty nine frequently asked questions were identified from a total of 142 questions collected from participants. Forty five percent found answers to all their questions, 53% found answers to some of their questions, and 2% did not find answers.

Respondents were able to use web format effectively to find and access online information; however, the use of photographs, diagrams, and topic summaries directly within the webpage frame is desired along with a direct linkage to the credible information sources. This research project shows that including dietitians in the process of learning, development, and evaluation of online omega-3 fatty acids nutrition education tools is an effective approach for meeting their learning needs in the work setting

References

1. Hannafin MJ, Hannafin MK, Hooper SR, Reiber LP, and Kini AS. Chapter 12 Research on and Research with Emerging Technologies. Taken from: Handbook of Research for Educational Communications and Technology. David H. Jonassen, Ed. Available at: <http://www.aect.org/edtech/ed1/firstedition.asp>. Accessed February 2, 2010.
2. Barr R, Tagg J. From teaching to learning: a new paradigm for undergraduate education. *Change*. 1995;27(6):13-25.
3. Norman DA, Spohrer JC. (1996). Learner-Centered Education. *Communications of the ACM* 39(4):24-27.
4. Creswell JW. (2007). *Qualitative Inquiry and Research Design: Choosing among five traditions* (2nd Ed.). Thousand Oaks: Sage Publications.
5. Valverde, M.M., Ritter-Gooder, P., and Lewis, N.M., (2008) Online learning and performance needs for educating dietitians in omega-3: qualitative phenomenology. 2008 Experimental Biology meeting abstracts [on CD-ROM], Abstract #683.3.
6. Dillman DA. (2007). *Mail and Internet Surveys: The tailored design method* (2nd Ed.). New Jersey: John Wiley & Sons.
7. Neuendorf, K. *The content analysis guidebook*. Thousand Oaks, CA: Sage Publications; 2002.
8. Valverde, M.M., Lewis, N.M., (2009) Learnomega3rd: A Website Design Streamlining Access to Online Resources Useful for Answering Dietitian's Omega-3 Questions. 2009 American Dietetic Association FNCE meeting poster presentation, October 19, 2009. *J Am Diet Assoc* 109(9): Suppl. 3 – Abstracts A-55.