Case Studies on Creating Media that Work

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Benjamin Chapman and Christina Moore, North Carolina State University
Joan Hegerfeld-Baker, South Dakota State University
Kali Kniel, University of Delaware
Jennifer Quinlan, Drexel University
Carol Byrd-Bredbenner, Rutgers, The State University of New Jersey
Writing the Grant

Virtual Labs

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Writing the Grant

Virtual Labs

online lab simulations
to expose students
(mid school – undergrad)
to lab processes

virtuallab.nmsu.edu
Writing the Grant: Starting the Process

- Previous working relationship
- Continual communication with partners
- Identified PI and their role
- Two/three people
- Number of partners -- manageble for the project
- TIME
- Excellent grant writer from NMSU
Writing the Grant: Justification

- Focused on the priorities of the RFA
- Previous Collaboration
- Urgency in industry and higher education
- Value – content, far reaching, applicable in diverse educational settings, Innovative
- Strong relationship with the objectives, deliverables, evaluation
Writing the Grant: *Guiding Questions: Creation of Performance Educational Objectives*

- What are students **not understanding** in undergraduate instruction in food safety and agricultural sciences?
- What **skills are graduates lacking** as they enter careers?
- What **content frustrates learners** in these areas?
- What **skills are they lacking** coming into the undergraduate coursework?
- What **misconceptions do students have about careers**?
### Sample Educational Objectives

These sample educational objectives indicate the types of objectives the team may determine. The final list of educational objectives will emerge from the initial meeting and process in the first months of the project, and will likely change upon the review of existing materials.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Performance-Based Indicator</th>
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<tbody>
<tr>
<td>Demonstrate how levels of concentration are related to contaminants.</td>
<td>Students will be able to explain differences in the amount of solutes or contaminants in soil and plant systems at the percent, part per million (ppm) and part per billion (ppb) levels.</td>
</tr>
<tr>
<td>Understand pH as related to safety of a food product.</td>
<td>Students will be able to explain the log scale and how concentration of H+ dictates pH.</td>
</tr>
<tr>
<td>Manipulate units in equations and accurately calculate equations.</td>
<td>Student will be able to convert units, use scientific notation, and correctly solve mathematical equations. They should also be able to explain the physical or chemical concept described by the equation and relate it to a real-world situation.</td>
</tr>
<tr>
<td>Understand how changing one variable in an equation affects others.</td>
<td></td>
</tr>
</tbody>
</table>
Writing the Grant: Outcomes / Deliverables

- Instructional Design Approach
- Major Concepts — relate to justification and guiding questions (objectives)
- Engage the Reviewer — scope, complexity, specific, target audience, expertise, tables, examples/samples, previous work (website)
- Provide a framework/graphic/table — aid the review process
Writing the Grant: Evaluation — Plan

- Third party evaluator — NDSU
- Questions to be answered through an evaluation process
- **How** each question was to be addressed
Writing the Grant:
Lessons Learned & Reinforced

- Each university has unique Grant Office structure
- Third party evaluator – Contract or Sub-award
- Budget – lead institution responsible pulling together
- Budget – very thorough budget narrative (particularly if awarded the grant)
- Grant Writer
- Expertise of partners
- Unforeseen – technology
Writing the Grant

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The Design Process
a New Meaningful Food Safety Game

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Primary Goal: Online game for college students to understand the complexity of food safety issues, risk associated with foodborne illness and related careers.

Secondary Goal: Learning resource that is engaging in a fun and novel way.
The Design Process: Lessons Learned from Game Design

- A meeting of the minds for blending ideas!
- Determine audience and use environment
- Outline learning goals
- Discuss available methods
- Determine feasibility ($ & ⌚)
- Plan for assessment
- Brainstorm over content
The Design Process:
From white board to prototype
Discovering new technologies to aid in development of appropriate content
The Design Process: A Sneak Peek

- Players realize the complexity of food production through common foods served at a Potluck Party.
- Players discover risks associated with all food products and make decisions that can make the difference between health and illness.
- Players can learn about all the careers involved in producing and protecting a safe and secure food supply.

Still working out the details...
Make decisions on how the foods served at a *Potluck Party* are prepared and learn how these choices affect the risk of illness. Why don’t all people get sick?
The Design Process
a *New Meaningful* Food Safety Game

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Working with Other Researchers

*Produce Safety Matters Animation*

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Working with Other Researchers

*Produce Safety Matters* Animations

Animations for producers to understand multiple points of *contamination*

[produce safety matters.org]
Working with other researchers: Collaboration matters

- Start with the right initial team
- Have a somewhat clear picture of the end result
  
  and how it will be used
- Bring schedules and content differences together
Working with other researchers:

Getting the evidence and messages correct

• Took time – but the product is worth it
• *Multiple Iterations*
• *Lots of confirmation – and a few concessions*
Working with other researchers: Aligning the funders

- We had an idea and 4 different pots of money
Working with Other Researchers

*Produce Safety Matters Animations*

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Research-Based Development

NoroCORE

Christina Moore, PhD
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Research-Based Development

NoroCORE

Scientific illustrations and animations for graduate students and the general public

norocore.ncsu.edu

Norovirus particle created by NMSU in collaboration with NoroCORE
Research-Based Development:
Lessons Learned from NoroCORE

You’re only as good as your illustrator. Choose well…
Research-Based Development: Making the invisible visible

Images created by NMSU in collaboration with NoroCORE
Research-Based Development: Accessible science

Image created by NMSU in collaboration with NoroCORE
Research-Based Development

NoroCORE

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Implementation & Promotion

Don’t Wash Your Chicken

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Implementation & Promotion

Don’t Wash Your Chicken

- Printed graphic novellas
- Storyline videos
- Cooking videos

drexel.edu/don't wash your chicken
Implementation & Promotion: Lessons Learned from Don’t Wash Your Chicken

DON’T WASH YOUR CHICKEN!

Although raw chicken and turkey can carry bacteria on their surfaces, research has shown that washing raw poultry under running water in your kitchen sink is a bad idea.

If you could see inside, you would see that washing poultry just splashes bacteria all over you, your kitchen towels, your countertops, and any other food you serve nearby, such as raw foods or salads. This can make people sick, especially young children, pregnant women, older adults and the immunocompromised.

Instead, just follow a simple rule from the website:

Germ-Vision
Implementation & Promotion: Lessons Learned from *Don’t Wash Your Chicken*

- Press release
- 2 min YouTube video
- Local media attention
Implementation & Promotion:
Lessons Learned from Don’t Wash Your Chicken

• A little controversy/relate to current topics
Implementation & Promotion: Lessons Learned from *Don’t Wash Your Chicken*

- 14 seconds to get your public health message across!
- Over 540,000 YouTube views to-date
Implementation & Promotion:
Lessons Learned from *Don’t Wash Your Chicken*

Message continues to spread via YouTube

- Nov. 17, 2014 – 541,188
- Nov. 23, 2014 – 542,231
- Nov. 24, 2014 – 546,694
Implementation & Promotion:
Lessons Learned from *Don’t Wash Your Chicken*

Message continues to spread via YouTube

- Nov. 17, 2014 – 250,143
- Nov. 23, 2014 – 250,313
- Nov. 24, 2014 – 250,403
Implementation & Promotion:
Lessons Learned from *Don’t Wash Your Chicken*

- Be proactive about getting your message out
- Work with your university media relations department
- Make some aspect of your message easy to find on the web
Implementation & Promotion

Don’t Wash Your Chicken

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Evaluation
*Ninja Kitchen* and *Don’t Be Gross*

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Evaluation

NinjaKitchenGame.org

DontBeGross.org
Formative Evaluation

- Identify gaps in food safety knowledge, practices, and attitudes
- Identify learning preferences
- Frequent feedback from children

Catchy, cool, fun
Summative Evaluation

Ninja Kitchen

• Project goals and objectives
• Study design
• Behavior change theories and constructs
• Develop and validate evaluation items
• Administer questionnaires
• Participant recruitment
Lessons Learned from Evaluating Interventions in Schools

- Start on Day 1 of the Project
- Revisit the evaluation plan often
- Make a thorough recruitment plan
- Ensure study fidelity
- Plan for high attrition rates
- Be flexible
- Work closely with your IRB
- Plan for high attrition rates
- Prepare for the unexpected
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Together:
A Food Safe America
Consumer Food Safety Education Conference 2014
Arlington, VA • December 4 & 5, 2014