Delaware Health Sciences Alliance

Creating Clinical and Research Teams for the Future Workshop on Collaborative Education for Clinicians and Scientists
Workshop Welcome

Kathleen Matt, PhD
University of Delaware
Executive Director, DHSA

Christine Arenson, MD
Thomas Jefferson University
Co-Chair, DHSA Education Task Force

David Usher, PhD
University of Delaware
Co-Chair, DHSA Education Task Force
GOALS OF THE WORKSHOP

• Develop a team approach to writing interdisciplinary education grants

• Develop specific skills needed to be successful in writing educational grants
Agenda

9:00 AM  Welcome (Matt, Arenson and Usher)

9:15 AM  How to Write a Successful Education Grant (Shea, Univ Penn)

10:15 AM  Break

10:30 AM  Setting and Assessing Educational Goals (Pusecker, UD)

11:30 AM  Review of the DHSA Education Pilot / Grant Program and Mentorship Process (Arenson and Usher)

12:00 PM  Networking Lunch

1:30 PM  Working Session (Rooms 1,2,3 and 14)

4:00 PM  Workshop Outcomes and Adjournment (Room 14)
Setting and Assessing Educational Goals

by applying a Logic Model and Evaluation Matrix

Kathy Pusecker
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www.assessment.udel.edu
Director of Educational Assessment
University of Delaware
302-831-8537
Agenda Deliverables
Participants will ....

1. Explore grant writing resources
2. Utilize a Logic Model as a program planning and evaluation tool
3. Think about applying Kirkpatrick’s evaluation model
4. Create a skeleton assessment plan based upon a real RFP
5. Be able to ask questions
OEA - assists investigators with grants and assessing learning and evaluating programs

- Consultations
- Partner with grant PI’s
- Assistance with methodology development and metrics
- Research
- Training
- Resources - Logic Model
<table>
<thead>
<tr>
<th>INPUTS</th>
<th>ACTIVITIES</th>
<th>OUTPUTS</th>
<th>SHORT TERM OUTCOMES</th>
<th>MEDIUM TERM OUTCOMES</th>
<th>LONG TERM OUTCOMES</th>
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<tbody>
<tr>
<td>Funding</td>
<td>Staff:</td>
<td>150 students participating</td>
<td>Increased awareness of college opportunities</td>
<td>Enrolling into another pre-collegiate program</td>
<td>Increase number of underrepresented students applying and enrolling to the UD</td>
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<td>Transportation</td>
<td>- Training staff</td>
<td>150 students completing the program</td>
<td>Build skills necessary for college preparation (math, vocabulary, reading)</td>
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<td>Faculty</td>
<td>- Recruiting students</td>
<td>10 workshops</td>
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<td>Staff</td>
<td>- Organize materials</td>
<td>1 orientation session</td>
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<td>Facilities</td>
<td>- Conduct sessions/teach</td>
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<td>Classroom space</td>
<td>Students:</td>
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<tr>
<td>Education materials</td>
<td>- Practice math, vocabulary, and other skills</td>
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<td>Scholarships</td>
<td>- Participate in group projects</td>
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<td>Food</td>
<td>- Participate in debates/discussions</td>
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<td>- Participate in college-like experience</td>
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INPUTS

- Funding
- Transportation
- Faculty
- Staff
- Facilities
- Classroom space
- Education materials
- Scholarships
- Food
ACTIVITIES/Strategies

- Recruiting
- Training
- Publicizing
- Traveling
- Building
OUTPUTS

• # that occurs after you participate in the activities
  • # workshops you promise to offer
  • Target # Participants attending workshop
  • Target # Participants completing the program
OUTCOMES

- As a result of your delivery of the activities and strategies, these things will occur (or you hope will occur)
  - Short Term Outcomes- will occur close to the time of the delivery of the activity or strategy
  - Medium Term Outcomes- occur later
  - Long Term Outcomes- The ultimate goal of the program delivery (often not measured during the life of a grant)
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<tr>
<td>Evaluation questions</td>
<td>Info. required</td>
<td>Info. on source(s)</td>
<td>Overall design strategy</td>
<td>Data collection methods</td>
<td>Data analysis methods</td>
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<td>What do you (or the client) want to know?</td>
<td>What do you need to answer the question?</td>
<td>Where are you going to get it?</td>
<td>How will you use this to answer the question?</td>
<td>How are you going to get the information?</td>
<td>What will you do with it once you get it?</td>
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<td>The question needs to be: Clear and specific</td>
<td>Examples: Perceptions Documentary (agency procedures, handbooks) Program records (participant rates, cost information)</td>
<td>Design depends on type of question – exploratory, descriptive, explanatory (impact) Case studies Non-equivalent group designs Surveys Other</td>
<td>Structured interviews Focus groups Questionnaires Visual inspection File review Observations Etc.</td>
<td>Descriptive statistics Cost/benefit analysis Qualitative analysis T-test Regression analysis</td>
<td>Generalizability limitations Data quality and reliability concerns Lack of access to records Staffing/travel constraints</td>
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Evaluation questions

What do you (or the client) want to know?

The question needs to be:

• Clear and specific
• Fair and objective
• Politically neutral
• Measurable
• Doable
Information required

What do you need to answer the question?

Examples:
- Perceptions
- Documentary (agency procedures, handbooks)
- Program records (participant rates, cost information)
## Information source(s)

### Where are you going to get it?

- Officials
- Program participants
- Inventory records
- Databases
- Laws and regulations
- Previous studies
Overall design strategy

How will you use this to answer the question?

Design depends on type of question – exploratory, descriptive, explanatory (impact)
Case studies
Non-equivalent group designs
Surveys
Other
Data collection methods

How are you going to get the information?

- Structured interviews
- Focus groups
- Questionnaires
- Visual inspection
- File review
- Observations
- Etc.
1) Did they like it? How did participants react to it?
2) Value Added Learning – Did learning occur?
3) Can the learner apply the skill, knowledge or attitude to his/her environment?
4) What are the results of the training? - longer term perspective

Donald Kirkpatrick (1994).
Data analysis methods

What will you do with it once you get it?

• Descriptive statistics
• Cost/benefit analysis
• Qualitative analysis
• T-test
• Regression analysis
Limitations

What can’t you do (caveats)?

• Generalizability limitations
• Data quality and reliability concerns
• Lack of access to records
• Staffing/travel constraints
What the analysis will allow you to say

Summarize the kinds of conclusions or results that the analysis will enable you to provide.
The purpose of this research is to learn how to more effectively change behaviors related to Cytomegalovirus Virus (CMV) transmission among pregnant women in order to reduce the incidence of congenital CMV infection. The research will be carried out in settings providing prenatal care with the intent of developing an effective intervention that will be both acceptable to clinic staff and feasible to implement as part of routine clinical prenatal care.

The project will enroll pregnant women in a research study where they will be screened to see if they have CMV antibodies and will be counseled on how to prevent infection. The Screening and Brief Intervention (SBI) will explain how to prevent the most common route of CMV transmission—child-to-mother—by presenting strategies for keeping the child’s urine and saliva from getting in the mother’s eyes, nose, or mouth.
Logic Model

• Identify a program goal outcome that would be accomplished that you would measure (Place in the short or medium term outcome column)

• List the activities you will deliver to meet the outcomes (Place in activities)

• Decide what inputs you need to deliver activities (Place in inputs)

• Estimate the number of outputs that will result from your activities (Place in outputs)

Evaluation Matrix

• Column 1: take your first outcome (short or medium from the logic model and phrase it as a question. Ex. If a logic model outcome is “participants in a training program will stop smoking.” I enter the question “Did participants stop smoking?” into Column 1 of the Evaluation Matrix.

• Column 2: fill in what information you need to answer this question. Ex. participants‘ lab reports and their self-reports.

• Column 3: Identify where are you going to get this information? Ex. The participant, the lab.

• Skip to Column 8: Try to summarize what the analysis will allow you to say.
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## Evaluation Matrix

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Delaware Health Science Alliance (DHSA) is a partnership among UD, Christiana Care, Nemours and TJU. One goal of the Alliance is to develop an inter-institutional educational project and research capability. Offers pilot grants whose purpose is to stimulate collaborations among the four DHSA institutions by identifying and removing barriers to such collaborations.

• **New, unique, inter-institutional educational programs**

• **Important educational research question**

Examples: novel teaching methods (pedagogy), interdisciplinary courses, internet-based education, simulation, courses or programs focusing on cultural diversity, patient centered care, safety or evidence based medicine.
DHSA Educational Grant Proposals

Funding: 18-24 months with a budget of $20,000 and institutional matching funds encouraged but not required

Support for:

• Teaching assistant

• IT help

• Small, specialized equipment or software

• Supplies and Travel

Doesn’t support:

• Faculty salaries

• Overhead
DHSA Educational Grant Proposals

Criteria for Evaluation

- Educational Merit, including impact in changing health education practices (50%)
- Applicability to DHSA Institutions (15%)
- Interdisciplinary and Inter-institutional Collaboration (15%)
- Potential for additional funding (10%)
- Higher level Learning Outcome * (10%)

*Kirkpatrick’s levels of training evaluation are

1. Reaction (“happiness index”)
2. Learning (increase in knowledge)
3. Behavior Change
4. Result or outcome
NETWORKING LUNCH

• Introduction of group leaders and their projects
  • Martha Buell → Health behavior and nutritional intervention
  • Melissa Melby → Global, health behavior and nutritional intervention
  • Jill Higginson → Curriculum development, clinical translational research
  • Jenni Buckely → Curriculum development, engineering, rehab research
  • Michelle Collins → Professional development
  • Susan Wainwright → Inter-professional education and assessment
  • Susan Toth-Cohen → Health Literacy [Oakes]
  • Salam Tabassum → Standard practices and patient safety
  • Katie Lakofsky → Medical informatics
  • Omar Khan → Global Health
  • Michael Spear → Palliative Care
NETWORKING LUNCH

BREAKOUT SESSIONS
(Reassemble at 1:15 in room 14)

Room 1 Teams (2):
Room 2 Teams (2):
Room 3 Teams (2):
Room 14 Teams (5):
Goals for the Working Session

1. Clarify the overall goals (specific aims) of your program
2. Identify gaps in your educational team
3. Define specific learning objectives (sub-aims)– which must be measurable, with significant impact
4. Define target audience – consider diversity
5. Develop a teaching methodology
6. Establish an evaluation plan that addresses your measurable learning objectives – develop a logic model
7. Planning for submission of a DHSA Pilot Grant
Workshop Outcomes

Christine Arenson, MD
Thomas Jefferson University
Co-Chair, DHSA Education Task Force

David Usher, PhD
University of Delaware
Co-Chair, DHSA Education Task Force
Key Points

• Qualifications of the PI
• Background - make the case for the significance and impact of your educational innovation
• Literature Review – make the case for a gap in current education practice and how your approach will fill the gap [validate hypothesis]
• Evaluation – need to define very specific short- and longer-term outcomes for learners
Discussion
Delaware Health Sciences Alliance

Creating Clinical and Research Teams for the Future Workshop on Collaborative Education for Clinicians and Scientists