GLOBAL PROBLEM SOLVING:
Using an Interdisciplinary Approach to Engage College Students in Addressing Global Problems

Nathan Tintle, Ryan Brunner, Gary De Vries, Paul Fessler, Tony Jelsma, Jeff Ploegstra, and Darren Stoub

Dordt College
What Should Christian Higher Education Include?

- More than information transfer
- Instill a heart for service
- Develop skills in problem solving
- Move beyond disciplinary silos

How can we accomplish this in a small college setting?
Our Approach

Implement a project that is:

• Interdisciplinary
• Campus-wide
• Tackles a real world problem
The Problem

884 million people worldwide lack sustainable access to safe drinking water and current human influence continues to threaten future access.
Water Crisis has Many Aspects

- Political
- Technical
- Educational
- Ecological
- Sociological/cultural

Many ways to tackle the problem
How did we Address the Problem?

Discipline 1

Discipline 2 → Interdisciplinary Solutions → Critique → Individual Reflection

Discipline 3
What Did This Project Entail?

- Over 475 students from many different disciplines
- 25 faculty members and courses
- Modeled interdisciplinary group problem solving
- Replaced a major assignment in the course, 10-15% of final grade
How did the disciplines contribute to the project?

- Professors helped students bring their discipline into the conversation
  - Provided additional resources
  - Led discipline specific class discussion(s)
- Students acted as “disciplinary experts”
Components of the Project

• Lecture by visiting speaker
  – Provided context for prompting question
Components of the Project

- Lecture by visiting speaker
- Written response to lecture
Components of the Project

- Lecture by visiting speaker
- Written response to lecture
- Dinner and interdisciplinary group discussions
  - Define a facet of the problem concretely
  - Brainstorm avenues to explore for solutions
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Components of the Project

- Lecture by visiting speaker
- Written response to lecture
- Dinner and interdisciplinary group discussions
- Research the problem and interact with experts in the field
  - Questions to experts were submitted online and the experts responded to a selection of them
Components of the Project

• Lecture by visiting speaker
• Written response to lecture
• Dinner and interdisciplinary group discussions
• Research the problem and interact with experts in the field
• Present a poster on one approach to the problem
Components of the Project

• Lecture by visiting speaker
• Written response to lecture
• Dinner and interdisciplinary group discussions
• Research the problem and interact with experts in the field
• Present a poster on one approach to the problem
• Evaluate other solutions
Components of the Project

- Lecture by visiting speaker
- Written response to lecture
- Dinner and interdisciplinary group discussions
- Research the problem and interact with experts in the field
- Present a poster on one approach to the problem
- Evaluate other solutions
- Individual reflection papers
How did it go?

“The Water Project has shown me that even first- and second-world countries can lack clean, safe drinking water, and has given me the chance to help creatively solve a real world problem with no "correct" or known solution”

Katie T., freshman biology major
How did it go?

“I am really excited about the water project! I enjoy how the project is bringing people of different disciplines and backgrounds together. As a nurse, I am bringing the healthcare perspective to the table as I draw from experiences and research that I have done for other classes.....Dordt is providing a fantastic opportunity for students to gather around an important issue and consider real world solutions to an extensive and complex problem.”

Lindsay H., Senior Nursing Major
Room for Improvement

- Disciplinary connections need to be stronger
  - Seemed like a course add-on for students
- Project seemed abstract, didn’t hit home for some students
- Lack of follow-up to students’ good ideas
- Project was more work than the grade allotment
Version 2.0 Improvements

- Class time dedicated to making disciplinary connections
- Chapel talks will tie in to the project
- Partner with existing NGOs
- Opportunities for service trips to the NGO over Christmas break
- Reduced time expectations
Next Year’s Version: AGILE
Approaching Global Issues through Interdisciplinary Learning Experiences

This year’s problem:
Almost nine million children still die each year before they reach their fifth birthday.
What does this approach hope to develop?

Students who have:

- An **eye** for complex world problems
- A **heart** to tackle these problems
- **Ears** to learn all aspects of the problems
- **Hands** equipped to serve their neighbor and their Lord
“Whatever you did for one of the least of these brothers of mine, you did for me.”
Matthew 25:40