



For and Fixin in Palau













12 Summers (2004 - 2015)

- 100 students
 - 43 women
 - 57 men
- From all 7 colleges
 - 28 Dietrich H&SS
 - 35 Heinz
 - 17 SCS
 - 16 CIT
 - 2 Tepper
 - 2 CFA
 - 2 MCS

(note: double majors are double counted)



- And Qatar
 - 3 Qatar-CS
 - 3 Qatar-IS



International Partners

In 14 countries

Sri

40 government ministries, NGOs, and schools

ederated States of

Micronesia

slanr

liue

Where do Partnerships Come From?



Program Outline

- Selective application process
- Orientation / preparation in 4th mini
- 10 summer weeks abroad
- Free for students
 - Program pays for travel
 - International partner provides:
 - Accommodations
 - Stipend for meals and incidentals
- Faculty advisor vets each relationship
 - Visits each site
 - Keeps in contact
 - Reviews deliverables
- Prescribed consulting process
 - With milestones and deliverables
 - Final Consulting Report

Technology includes:

- Computer Science
- Information Systems
- Advanced Applications

- E.g. GIS, Design





Focus on Capacity-Building

- New or improved technological tools
- Individuals have new or expanded knowledge to use those tools
- The organization has new work processes, policies, budgets
- Organization leaders have new vision of how technology can help meet them meet their mission.



Why Capacity-Building Consulting?

- Alternative models
 - Internship
 - System development
 - Research field-study
- Consulting
 - Puts the student in a leadership role
 - Focuses solely on the needs of one partner
- Capacity Building
 - Provides sustainable value to the partner
 - Student experiences the social context of technological solutions



A Win-Win Situation

Consulting provides a good context for students to develop technical and professional leadership skills while providing valuable assistance to government agencies, schools, and other community development organizations.





Technical-Professional Leadership Skills

- Lead a diverse working team
- Assess the social, political, and professional contexts in which technology is used
- Systematically structure a complex problem
- Create and execute a project plan coordinating the work of others
- Build capacity where needed in individuals and the organization
- Understand practical issues of building and maintaining complex systems



Communication Skills

- Communicate across cultural, age, and gender differences
- Describe technical concepts to peers inside and outside the discipline
- Maintain working documents that describe, plan, persuade, and coordinate work with others
- Document outcomes objectively
- Give a presentation to peers within and outside the discipline



Meta-Curricular Goals

Global Awareness and Competence

- Develop a diverse and knowledgeable worldview
- Exhibits cross-cultural sensitivity and adaptability

Critical Thinking

- Recognizes and accepts contradiction and ambiguity, understanding that they are an integral part of thought and creativity.
- Asks significant and pertinent questions and states problems with specificity



Meta-Curricular Goals

Social Responsibility

- Move from self-centered/self-focused decision making to a recognition that their decisions/ actions impact people and their environment
- Take a role in helping and supporting others to act in a socially responsible manner

Introspection and Reflection

- Identifies and evaluates personal strengths and areas for improvement
- Develop a clearer picture of personal career direction



Does it Meet These Goals?

Educational Goal	Not Effective 1	Somewhat Effective 2	Effective 3	Very Effective 4	Rating Average	Response Count
Cross cultural skills	0	1	6	16	3.65	23
Resume	0	5	8	10	3.22	23
Technical skills	4	8	5	6	2.57	23
Management skills	0	3	9	10	3.32	22
Communication skills	0	1	11	11	3.43	23
Ability to think on your feet	1	3	9	10	3.22	23
Critical thinking	1	6	11	5	2.87	23
Ability to work in a team	1	3	11	7	3.09	22



Does it Match Students' Interests?



Surveyed:

- All SCS
- All CIT
- All IS
- All Heinz
- 500 other

Consistent:

- 1. Explore something new
- 2. Cultural exposure
- 3/4/5. Intellectual challenge, Broaden academic understanding, working hands on



Does it Address Students' Barriers?











Student Barrier Constraints

- Keep it free
- Do it in the summer
- Make it professionally meaningful



Breadth of Projects

- Programming Planet Read
- Database design Palau MOH
- Web design CI MOH, Palau MOE, SL CRC
- Web-based applications Palau MOE, CI Finance & Justice
- GIS Palau MOH
- Language translation Sri Lanka CRC, Planet Read
- Graphic Design Palau MOH, SL CRC
- Business planning Universidad Austral de Chile
- Administrative systems Ashesi University
- Technology in education Niue OLPC
- Strategic technology planning Nauru
- e-Government CI Office of the Prime Minister
- Human capacity building *everywhere
- (Robotics) Curriculum design Philippines



Value to Partners: Sustainability

- Cook Islands Ministry of Health web site (2004, 2010)
- Palau Ministry of Health databases (2006, 2007, 2009)
- Palau Ministry of Health IRB Proposal (2008)
- Palau Ministry of Education Linux-based servers (2005)
- Ashesi University in Ghana student information system (2008)
- Mathru School for the Blind web site (2008...redone in 2014)
- Cook Islands e-Governnment strategy (2005)
- Philippines OLLCF Robotics Curriculum (2009)



But Not Always...

- Weak student leadership skills
- Non-engaged partners
- Change of Ministry personnel
 - Sometimes frequently
- Orientation sometimes inadequate
 - Some get it, some don't
- Advising sometimes ineffective
 - Student Consultants take unsustainable paths
- Sometimes the learning from experience is the sustainable result



Partners are Willing to Repeat

- Palau Ministry of Education (2005, 2007, 2009, 2013, 2014, 2015)
- Palau Ministry of Health (2006, 2007, 2008, 2009)
- Our Lady of Lourdes College Foundation (2009, 2010, 2011, 2013, 2014)
- Cook Islands Ministries (2004, 2005, 2010, 2011, 2012)
- ASYV, Rwanda (2011, 2012, 2013, 2014)
- Horizon Group, Rwanda (2012, 2013)



Can it scale?

- Students: yes
- International partners: unbounded
- Faculty advisors
 - 1 per 4-10 students
 - Does appear to be interest
- Funding?





Can Funding Scale?



Fixed: \$100K Per Student: \$5K (includes Advisor costs)

Donors - Individual & Foundation

- Interesting question; unknown
- Motivations:
 - Educating a global workforce / student development
 - Country specific

Donors - Corporate

- Corporate Social Responsibility commitment
- Diverse and global-ready employment candidates
- Brand identity in emerging markets
- Sustainable results tied to purchase of their products/services

Strategic Partnerships*

- Secretariat of the Pacific Community
- International Telecommunications Union
- Asian Development Bank
 - * We are a cost-effective way to leverage the funds that others are investing.



Discussion

- Other organizations that you could see benefiting from such consulting?
- Why, and how would they benefit?
- What assessment do you think is still lacking in this report on the program?
- How could this approach scale to better address the humanitarian productivity gap?

