

Funded Equipment

One Laptop per Child: Training Program for California State University Northridge Peace Corps Master's International in Math and Secondary Education Students

RE: Contributors Program Proposal

1. Project Title & Shipment Detail

Name of Project: OLPC Training Program for California State University Northridge Peace Corps Master's International in Math and Secondary Education Students

Shipping Address:

Carol Shubin
Department of Mathematics
18111 Nordhoff St
California State University Northridge
91330-8313

Number of Laptops (or other hardware) You Request to Borrow: 10
Loan Length—How Many Months: 36 months

2. Team Participants

Name(s) & Contact Info: (include all email addresses & phone numbers)

Carol Shubin
carol.shubin@csun.edu
Phone: 818-677-2721

Mike Rivas
mike.rivas@csun.edu
Phone: 818-677-6792

Brian Foley
brian.foley@csun.edu
Phone: 818- 677-4005

Employer and/or School: California State University Northridge (CSUN)

Past Experience/Qualifications:

Director of CSUN Peace Corps Master's International Program in Education:

The CSUN Peace Corps Master's International (PCMI) Program offers the unique opportunity to combine Peace Corps service with a master's degree program in Mathematics or Secondary Education, Teaching and Learning. CSUN PCMI Education volunteers work with local teachers to teach math, science, English as a foreign language, information and communication technologies, special education, and primary literacy. They work as teachers or team-teachers in primary or secondary schools and as teacher trainers in universities or teacher training centers. Volunteers work with teachers to improve participatory teaching methodologies, classroom management, assessments, parental involvement, and gender equity in the classroom. Peace Corps service is 27 months. The Peace Corps experience will certainly enhance their resume for a future career in teaching.

Some Related Funded Proposal

NSF LSAMP Bridges to the Doctorate, C. Shubin (Co-PI) with K. Marsaglia (PI), C. Cadavid, K. Pellitier, 8/2009- 7/2011

Beck Grant, C. Shubin and G. Melara: Online Voice Recognition Project, 7/2009-6/2010

African Mathematics Millennium Science Initiative Visiting Scholar award to Kigali Institute of Science and Technology, 12/2008 - 1/2009.

Fulbright Scholarship at the Kigali Institute of Science and Technology, 1/2007 - 6/2007.

PI of NASA CSUN/JPL PAIR: Analyzing data sets, funded for \$1.2 million from 2/2000-6/2005.

NSF POWRE: Improving mathematics education for pre-service teachers, funded 8/1999-1/2001.

Professor of Mathematics at CSUN.

3. Objectives

Project Objectives:

California State University, Northridge (CSUN) requests 10 OLPC computers for instruction of Math and Secondary Education CSUN Peace Corps Master's International students. CSUN students will learn to use existing educational software and develop new projects appropriate for middle and high school level students. We will also teach CSUN students use to some tools developed by CSUN faculty for Mathematics.

4. Objectives and Plan of Action

- Support Mathematics education through shared online instructional materials and tutoring.
- Identify activities, resources, and instructional training models, which have been evaluated by trained mathematicians.
- Use evidence-based practices for teaching mathematics.
- Collect stories from students, tutors, and faculty about usage of the site.
- Increase the passing rates in mathematics courses for participating students.
- Improve student skills in scientific reading and writing of English.
- Define best practices
- Provide students with a pool of teacher approved math problems organized to support their learning objectives.
- Provide a platform to share pedagogically innovative and student engaging instructional resources, which can be beneficial to education and teacher training programs.
- Define Universal Design best practices for teaching mathematics to all learners, with and without disabilities.
- Identify barriers to access presented by the software applications used and define reasonable alternative methods of access as appropriate.
- Communicate compliance barriers to the Open Source community and/or application vendors regarding accessibility, interoperability, and usability of the products in use in this project.
- Provide a continuous improvement model for deployment of services and support to students with disabilities.
- Improve skills of CSUN PCMI students, and increase the number of teachers and tutors prepared to utilize the online resources in teaching mathematics.

5. Needs

Why is this project needed? Locally? In the greater OLPC/Sugar community? Outside the community?

We want to provide training to our Peace Corps Master's International students which will promote STEM education internationally. Through Peace Corps, our students will instruct teachers so that they have the ability to tailor the content and problem sets or use what is already developed by CSUN faculty. Current free software has been designed to run on the web be available on the browser level. No extra software is required; resources are platform independent. We will also work to develop a static html pages which can run on local servers.

Why can't this project be done in emulation using non-XO machines?

Yes.

Why are you requesting the number of machines you are asking for?

I am running a Peace Corps Master's International Program and hope to have at least ten students participating from Math and Secondary Education. We are working with Peace Corps to arrange that our students' service will be in locations where schools are deploying OLPC computers.

Will you consider (1) salvaged/rebuilt or (2) damaged XO Laptops?

No, because I do not know how to fix them.

6. Sharing Deliverables

Project URL—where you'll Blog specific ongoing progress:

We will create a blog that is connected to our Peace Corps master's International website:

http://www.csun.edu/~vcmth014/peacecorps/PCMI_10_2010.html

We will also post on http://wiki.laptop.org/go/Contributors_program

Please web-publish this entire completed proposal, removing any sections affecting your personal privacy. Ask if you want help

-- communicating with our OLPC/Sugar global community is core.

Yes. If approved, I can post the proposal on my Peace Corps Master's International website, OLPC/Sugar websites, and elsewhere.

How will you convey tentative ideas & results back to the OLPC/Sugar community, prior to completion?

How will the final fruits of your labor be distributed to children or community members worldwide? Will your work have any possible application or use outside our community? If yes, how will these people be reached?

We hope to get other Peace Corps Master's International programs interested in training their Education students with OLPC computers. Our work will also be disseminated through the California State University System, Moodle, and Webwork communities.

Have you investigated working with nearby XO Lending Libraries or Project Groups?

No.

7. Quality/Mentoring

Would your Project benefit from Support, Documentation and/or Testing people?

Yes. At some point we will be working on software development.

Teachers' input into Usability?

Yes. CSUN is working on the development of math curriculum which is open, easy to customize, and scale.

How will you promote your work?

I plan to promote our work through Peace Corps, the California State University System, Moodle Community and Mathematics Association of America Webwork Community.

Can we help you with an experienced mentor from the OLPC/Sugar community?

Yes. We would like to work with Caryl Bigenho via RT [volunteer@laptop.org].

If YES: specify the kind of Ongoing Mentoring that will benefit you most.

The ongoing mentoring that would be of most benefit would be instruction on how to use the many features of OLPC and periodic feedback on our progress.

If NO: specify who will help you share your progress, creations & results.

8. Timeline (Start to Finish) Please include a Proposed timeline for your Project life-cycle: (this can be in the form of Month 1, Month 2, etc rather than specific dates) Include a couple milestones, even if tentative.

Summer 2011: Get official approval for OLPC to work with Peace Corps.

Fall 2011: Start training CSUN PCMI students how to use OLPC computers.

Students will enter Peace Corps service in Fall 2012 or 2013 and use their training to instruct teachers and students abroad.

Fall 2012: Instruct the second cohort of CSUN PCMI students.

Fall 2013: Instruct the second cohort of CSUN PCMI students.

Specify how you prefer to communicate your ongoing progress and obstacles!

via email

I agree to pass on the laptop(s) to a local OLPC group or other interested contributors in case I do not have need for the laptop(s) anymore or in case my project progress stalls.