



Big Island Activity Report

University of Hawai'i at Mānoa
College of Education

December 2014

Research Units

5

Center on Disability Studies (CDS)

5

Consulting Contract [Completed]	5
Department of Health Contract	5
Dual Enrollment with Individualized Supports	5
Emergency Preparedness Special Initiative System of Support	6
Growing Pono Schools	6
Hawai'i Deaf-Blind Project	6
HI PRAISE	6
Ho'oku'i	7
Ka Hana 'Imi Na 'auao	7
Kiwila	8
National Science Foundation - Math Scholars Program	8
PILI Project	8
Pono Choices	8
Putting the "I" in the IEP [Completed]	9

Curriculum Research & Development Group (CRDG)

9

A Modeling Approach to Algebra (MOW) Professional Development	9
The ACE21/Runbook Projects and Access Learning Schools	9
FANC Professional Development: The Effects of Formative Assessment in a Networked Classroom on Student Learning of Algebraic Concepts [Completed]	10
Hawai'i School Health Surveys	10
Heluhelu Maoli: Building Strong Foundations in Reading and Mathematics [Completed]	10
MaTCH: Math Teachers' Circle of Hawai'i	11
Mathematics Professional Development for Connections Public Charter School (Completed)	12
Pacific Education and Research for Leadership in Science (PEARLS) [Completed]	12
Peabody Picture Vocabulary Test Administration and Scoring [Completed]	12
Piha Pono: A Robust RTI Approach Integrating Reading, Mathematics, and Behavior Supports	13
Practices of Physics and Technology (Completed)	13
SUPER M: School and University Partnership for Educational Renewal in Mathematics [Completed]	13
Teaching Science as Inquiry (TSI) Aquatic [Completed]	14
Teaching Science as Inquiry (TSI) Energy [Completed]	14



UNIVERSITY
of HAWAII®
MĀNOA



Voice of the Sea Television and Online Show	14
The Makery Cloud on Hawaii Island (Completed)	15
Technology for Untapped Talent on Hawaii Island [Completed]	15

Academic Departments 17

Curriculum Studies (EDCS)

	17
A'o Hawai'i: Viewing the Classroom As A Canoe, The Canoe As A Classroom	17
Kulia I Ka Nu'u [Completed]	17
Master of Education (MEd) in Curriculum Studies	17
Master of Education (MEd) in Early Childhood Education	17
Malama Honua	17
Ethnomathematics and STEM Institute	18

Educational Foundations (EDEF)

	18
Master of Education: Educational Leadership in the Asia-Pacific Region (EdLeads)	18
Master of Education: Private School Leadership (PSL)	19

Institute for Teacher Education (ITE)

	19
Bachelor of Education (BEd) in Elementary Education	19
Bachelor of Education (BEd) in Early Childhood and Special Education	19
Post-Baccalaureate Certificate in Secondary Education (PBCSE)	20
Master of Education in Teaching (MEdT)	20

Kinesiology and Rehabilitation Science (KRS)

	20
Master of Science in Adapted Physical Activity	20
Master of Science in Rehabilitation Counseling	20
Hawai'i Concussion Awareness and Management Program	21

Learning Design and Technology (LTEC)

	21
Graduate Certificate in Online Learning and Teaching (COLT)	21



UNIVERSITY
of HAWAI'I®
MĀNOA



Online Master of Education in Educational Technology	21
--	----

Special Education (SPED)

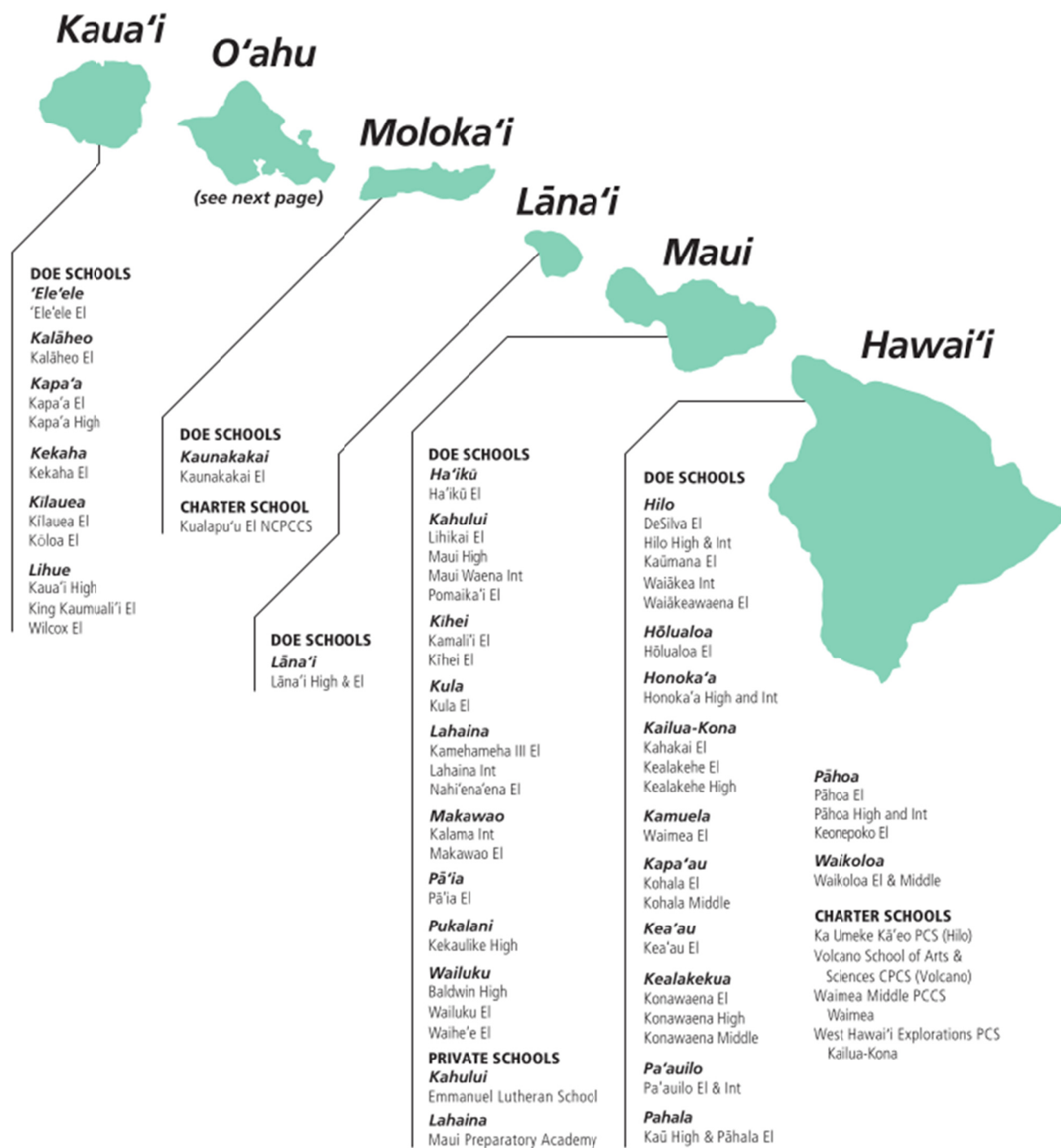
	22
Special Education Field Experience, Student Teaching and Seminars (West Kona Side Big Island)	22
Technology-Based Strategies for English Language Learners [Completed]	22
Teacher Professional Development Workshops: Universal Design for Learning in the K-12 Classroom	23

Support Units 25

Office of Student Academic Services (OSAS)

	25
Neighbor Island Outreach	25
NEW Distance Learning Licensure Programs Available in Kona	27

College of Education Partner Schools





RESEARCH UNITS

Center on Disability Studies (CDS)

CONSULTING CONTRACT [COMPLETED]

Description: CDS contracts with the Hawai'i District DOE to develop new approaches to classroom methods for students lagging in basic math skills.

Partner: HIDOE, Hawai'i District

Schools: Konawaena High

DEPARTMENT OF HEALTH CONTRACT

Description: CDS contracts with and is funded by the Department of Health, Developmental Disabilities Division for this project. Approximately 2,000 clients and families statewide have been served. Through this contract, CDS

- Provides professional development for staff statewide;
- Supports the strategic planning and systems change activities for people with developmental disabilities;
- Conducts the National Core Indicators (NCI) surveys of 500 participants (one of the best sources of research on outcomes of services for people with disabilities);
- Updates the manual and the trainers guide and provides training for trainers;
- Implements Project WISE, to improve gynecologic health services for women with developmental disabilities; and
- Partners with the health centers throughout the state in these activities.

Partners: Department of Health, Non-profit service providers

DUAL ENROLLMENT WITH INDIVIDUALIZED SUPPORTS

Description: CDS works to model demonstration building capacity and provides direct support to college students with intellectual disabilities at Hilo Community College.

Partners: HIDOE, Hawai'i District; ARC of Hawai'i; DOH, Developmental Disabilities Division; DHS, Vocational Rehabilitation

Schools: Waiākea High School, Hilo High School, Hawai'i Community College



EMERGENCY PREPAREDNESS SPECIAL INITIATIVE SYSTEM OF SUPPORT

Description: Together with our partners, CDS

- Assists individuals with a development disability, who are at high risk in an emergency situation, to develop a comprehensive response plan. This work is carried out extensively on neighbor islands
- Provides train the trainer workshops

Partners: Public Health Nurse, Department of Health Developmental Disabilities Division, Disability and Community Access Board, State Civil Defense, City and County Offices of Emergency Management, Red Cross. Funded by The Administration on Developmental Disabilities in HHS.

GROWING PONO SCHOOLS

Description: Growing Pono Schools collaborates in creating a social skills/advisory curriculum and to promote Culture Based Education and Appreciative Inquiry. The project served 19 teachers with 200 students in the first year and 175 students in the second year.

Partners: ALU LIKE Inc., DOE teachers

Schools: Kohala Middle School, Kealakehe Intermediate School

HAWAII DEAF-BLIND PROJECT

Description: Hawaii Deaf-Blind Project provides training and technical assistance to teachers, students, and families of children with dual hearing and vision sensory impairments. It also publishes statewide and regional newsletters.

Partners: Department of Education; Department of Health; Regional Technical Assistance Centers; all public, private and charter schools; Early Intervention (Part C) services and Preschool programs

HI PRAISE

Description: Hawaii Patient Reward and Incentive to Support Empowerment (HI PRAISE) is a project to help individuals avoid and manage diabetes. Goals for the program include avoiding the onset of diabetes, improving compliance with ADA guidelines, and improving the self-management of diabetes. The project evaluates effectiveness as measured by different ethnic and cultural groups, in rural and urban settings, and by examining effectiveness of new diabetes education services. The project hopes to reach 4,500 individuals statewide.



UNIVERSITY
of HAWAII®
MĀNOA



Partners: Funded by the Centers for Medicaid and Medicare through a local contract with the Department of Human Services

HO'OKU'I

Description: Project Ho'oku'i works to increase the number of Native Hawaiian high school students who qualify for participation in the Running Start Program and who ultimately achieve success in postsecondary education. Running Start is a statewide program that provides an opportunity for academically qualified juniors and seniors to enroll in college classes through the University of Hawai'i (UH) system as part of their high school coursework. Project activities:

- a) provide after school individualized computer based accelerated instruction that diagnoses, corrects, and accelerates math and English knowledge;
 - b) provide culturally relevant mentoring and career counseling support designed to assist students as they transition to postsecondary education;
 - c) provide after-school tutorial support focusing on the skills necessary to achieve at the college level; and
 - d) provide transportation for students in order to increase access to project activities and college campuses. Ho'oku'i is a Hawaiian word meaning "to join things together."
- Project Ho'oku'i does just this as it brings together the four activities indicated above and provides a comprehensive package of support.

The projected total of 300 students served and 200 students graduating high school with post-secondary credits was achieved by the end of year three.

Partners: Kua O Ka La Mentoring Program, Hawai'i Community College system

Schools: Hilo High, Pāhoa High, Waiākea High, Kua O Ka La PCS, Connections PCS, Hawai'i Academy of Arts & Sciences PCS, Ke Ana La'ahana PCS, Kea'au High, Kaumeki PCS, Konawaena High, Kealakehe High, Ke Kula 'o 'Ehunuikaimalino PCS.

KA HANA 'IMI NA 'AUAO

Description: Ka Hana 'Imi Na 'auao is a culturally responsive general education science curriculum designed to get students interested in pursuing careers in science. Project staff members observe classes, survey teachers and students, and conduct focus groups and interviews. Quantitative results indicate a significant change in science self-efficacy and frequency of pono behaviors (behaviors valued by members of the Hawaiian community). Qualitative results suggested that students became less apprehensive of pursuing careers in science. The project served 7 teachers and 134 students.

Partner: ALU LIKE, Inc.



UNIVERSITY
of HAWAII®
MĀNOA



Schools: Honoka'a High, Kua O Ka La PCS

KIWILA

Description: The Kiwila project approach is a collaborative team effort between educators/researchers at the College of Education at the University of Hawai'i at Mānoa and mentors and cultural experts at ALU LIKE, Inc. that seeks to create a civics curriculum for grades 4, 7, and 11. This partnership is designed to assure high quality curriculum development and field test activities as well as culturally responsive curriculum activities appropriate to the needs of Native Hawaiian students. Data were compiled on all students from all pilot/development and field test sites with 450 students participating and 12 teachers receiving professional development on use of curriculum.

Partners: ALU LIKE Inc., Hilo; HIDOE teachers.

Schools: Big Island - Kohala Middle School, Hilo High School, Waiākea Intermediate School, Waiākeawaena Elementary School, Kohala Intermediate School

NATIONAL SCIENCE FOUNDATION - MATH SCHOLARS PROGRAM

Description: The Math Scholars project performs formative and summative evaluation of project activities for the National Science Foundation Math Scholars Program.

Partners: UH Mānoa College of Education faculty and students, UH Hilo

PILI PROJECT

Description: The PILI Project supports the placement and supervision of a student teacher in an Elementary School deaf education classroom at Kea'au Elementary School.

Partner: HIDOE

Schools: Kea'au Elementary School

PONO CHOICES

Description: Pono Choices schools are participating in a random-control-study to test the effectiveness of a culturally responsive teen pregnancy prevention program for middle school students. Approximately 1300 students and 19 teachers are involved in Pono Choices statewide.

Partners: Kua O Ka La, Planned Parenthood Hawai'i, Berkley Policy Associates, ALU LIKE, Inc.

Schools: Konawena Intermediate School, Kealekehe Intermediate School, Waiākea



UNIVERSITY
of HAWAII®
MĀNOA



Intermediate School, Hilo Intermediate School, Volcano Charter School, Hawai'i Academy of Arts & Sciences PCS, Pa'auilo Intermediate School, Waters of Life PCS, Connections PCS, Innovations PCS, Kalaniana'ole Intermediate School, Ka'u Intermediate School, Kua O Ka La PCS

PUTTING THE "I" IN THE IEP [COMPLETED]

Description: Putting the "I" in the IEP is a culturally responsive special education curriculum designed to get students and parents more involved in Individual Education Plan (IEP) meetings. Project staff members observe classes and IEP meetings and conduct surveys, focus groups, and interviews. Quantitative and qualitative results indicated improved student outcomes, including a significant increase in

- a) student and teacher perceptions of self-determination;
- b) student class engagement; and
- c) student and parent involvement in IEP meetings.

The project has worked with 88 parents, 9 teachers, and 98 students

Partners: Learning Disabilities Association of Hawai'i, ALU LIKE, Inc.

Schools: Kohala, Hilo, Pāhoa, Waiākea, Kua O Ka La PCS

Curriculum Research & Development Group (CRDG)

A MODELING APPROACH TO ALGEBRA (MOW) PROFESSIONAL DEVELOPMENT

Description: MOW is a curriculum research and development project. The project includes summer professional development, follow-up sessions, and coaching observations. CRDG has developed a curriculum for a course for struggling ninth-grade algebra students based on the CCSS high school modeling standards and mathematical practice. The extensive curriculum materials include student notes, teacher notes, annotated student pages, questions to ask to ascertain student understanding, and suggestions for using classroom connected technology for gathering formative assessment data.

The number of teachers involved were: 5 Big Island, 3 Kaua'i, and 2 Maui. There were 600 students involved across Big Island, Kaua'i, and Maui.

Partner: HIDOE. Funded by the HIDOE Office of Curriculum Instruction and Student Support.

THE ACE21/RUNBOOK PROJECTS AND ACCESS LEARNING SCHOOLS

Description: The Academy for the 21st Century (ACE21) and Runbook projects are two components of work CRDG has been doing, in collaboration with the University Laboratory School (ULS), with the HIDOE, beginning in 2013 with support of their one-to-one pilot program in eight schools at the elementary, middle, and high school levels,



UNIVERSITY
of HAWAII®
MĀNOA



and now expanding with support to all HIDOE schools through the Access Learning Schools program.

The support comprises a set of professional development courses that lead teachers, administrators, and technology coordinators through the process of implementing and managing a one-to-one technology program and working with Google apps for Education (GAFE), a free cloud-based collaborative learning environment. The Runbook is a web-based publication that functions as a user's manual for administrators and technology coordinators in setting up and working with GAFE. Through these programs, CRDG's Information Technology (IT) and Learning Technologies (LT) teams and ULS curriculum specialists focus on adapting existing best practices to the unique environment and strategic goals of the HIDOE.

Partners: HIDOE, University Laboratory School

FANC PROFESSIONAL DEVELOPMENT: THE EFFECTS OF FORMATIVE ASSESSMENT IN A NETWORKED CLASSROOM ON STUDENT LEARNING OF ALGEBRAIC CONCEPTS [COMPLETED]

Description: Project FANC (NSF REESE Award HRD-0522946, August 2007–August 2011) was a full-scale research project involving 30 teachers and their students. Teachers participated in two summer experiences, one for 5 days and one for 3 days. During two school years, teachers participated in 5 half-day follow-up sessions, and received classroom visits from project personnel for coaching and mentoring.

The number of teachers involved were: 2 Big Island and 2 Kaua'i. There were 645 students (215 per year for 3 years) involved across Kaua'i and the Big Island.

Partner: HIDOE

Schools: Big Island - Connections Public Charter School and Ke Ana La'ahana Public Charter School

HAWAII SCHOOL HEALTH SURVEYS

Description: Randomly selected secondary students were surveyed in Hawai'i public schools regarding health-risk behaviors. Surveys are conducted at the state and county levels, middle school, and high school. Survey instruments used include the Youth Tobacco Survey (YTS) and the Youth Risk Behavior Survey (YRBS). Surveys are administered every other year, and results are reported at state and county levels.

Partners: Department of Health, HIDOE

HELUHELU MAOLI: BUILDING STRONG FOUNDATIONS IN READING AND MATHEMATICS [COMPLETED]

Description: Heluhelu Maoli was a three-year project designed to provide early and strategic supports that build important foundational reading and mathematics concepts and knowledge in K–6 Hawaiian students.



Heluhelu Maoli focused on reading in grades K–6 and mathematics in Grades K–1 in ten schools with relatively high percentages of Native Hawaiian students and an overall poverty rate of 74% (the state average is 45%). The project utilized a Response to Intervention (RTI) model, a comprehensive early–detection and prevention system that identified struggling students and assisted them before they fell behind. This system used universal screening and high–quality instruction for all students and provided interventions targeted for struggling students.

Ten elementary schools that serve high percentages of students of Hawaiian ancestry participated in Heluhelu Maoli. The activities were designed to

- (1) continue to develop high–quality implementation of a school–wide reading program;
- (2) increase focus and resources for students who are in need of targeted reading interventions;
- (3) develop high–quality mathematics instruction and practices and place supports for struggling first graders; and
- (4) maintain an extensive database on K–3 reading and mathematics performance of Hawaiian children.

Heluhelu Maoli annually served 4,705 students (neighbor island count: 2,693 annually), more than half of whom were Native Hawaiian.

Schools: Big Island- 3 schools (Kapi'olani, Keaukaha, Mountain View)

Partner: HDOE Office of Curriculum, Instruction and Student Support (responsible for school–based activities)

MATCH: MATH TEACHERS' CIRCLE OF HAWAII'

Description: MaTCH (Math Teachers' Circle of Hawai'i) is a statewide professional development project to expand the mathematics knowledge of teachers, and provides experiences to support teachers' understanding of the Common Core Mathematical Practices.

The number of teachers currently involved are as follows: 4 from the Hawai'i Academy of Arts and Science in Pahoehoe on the Big Island, 2 from Chiefess Kamakahelei on Kaua'i, and 6 on Moloka'i. These teachers connect to our professional development through an "electronic table" or e-tables. They organize themselves on their island and connect with Oahu through one Google Hangout. The e-tables interact with the Oahu group doing problem solving activities and addressing pedagogical topics. The e-tables attend the PD monthly and do the same activities as the Oahu in-the-classroom tables. The e-tables are facilitated by two long-time mathematician collaborators (former SUPER-M fellows) who are partially supported by an ESEA Title II grant.

Partners: UHM Department of Mathematics, HDOE



UNIVERSITY
of HAWAII®
MĀNOA



MATHEMATICS PROFESSIONAL DEVELOPMENT FOR CONNECTIONS PUBLIC CHARTER SCHOOL (COMPLETED)

Description: Connections Public Charter School has a long association with CRDG and uses *Measure Up* in the Elementary School grades and *Algebra I: A Process Approach* in grades 7 and 8, both developed by CRDG. CPCS contracted CRDG during each school year from 2009–2012 to conduct professional development sessions for targeted grade levels as well as whole faculty (including special education teachers and educational aides) on both programs through School Improvement Title I grants awarded to the school.

The project involved 20 teachers on the Big Island. There were 400 students per year (numbers per year vary, but about 160 students grades K–6; 240 students grades 7–12).

Partner: Connections Public Charter School

PACIFIC EDUCATION AND RESEARCH FOR LEADERSHIP IN SCIENCE (PEARLS) [COMPLETED]

Description: The Pacific Education and Research for Leadership in Science (PEARLS) project was a National Institute of Health funded grant through Science Education Partnership Awards (SEPA) and a 5-year partnership with John A. Burns School of Medicine. The goal of the PEARLS Project was to increase knowledge of science and interest in science careers for middle school students across the Pacific region. This was achieved by coordinating the input of regional agencies that have demonstrated success working with students in multiple dimensions of education and career guidance.

PEARLS aimed to develop, test and disseminate a culturally-appropriate, inquiry-driven, standards-based middle school science curricula composed of modules that focus on local scientific research, interactions with researchers, hands-on experiments and innovative multi-media formats selected by end users; and to invigorate the pathway to science careers by expanding and facilitating access to mentoring and other resources for future scientists and science teachers.

The program had been disseminated to the islands of Hawai'i as well as the Pacific Region (American Samoa, Yap, Pohnpei, Saipan, Guam, and Palau). The project provided in-service for teachers on the Big Island (2 schools), Maui (2 schools), and Kaua'i (3 schools). The project had three teachers participate from Kapa'a Intermediate School, and one each from Pahoa Intermediate School & High School, Waimea Canyon Elementary School, and Innovations PCS in Kona.

Partner: John A. Burns School of Medicine

Schools: Big Island – Pahoa Intermediate & High School, Waimea Canyon Elementary School, and Innovations PCS in Kona

PEABODY PICTURE VOCABULARY TEST ADMINISTRATION AND SCORING [COMPLETED]

Description: CRDG administered and scored the Peabody Picture Vocabulary Test



(PPVT) for Race To The Top (RTTT)–subsidized preschool students including pre- and post-assessment each school year.

Partner: HDOE

PIHA PONO: A ROBUST RTI APPROACH INTEGRATING READING, MATHEMATICS, AND BEHAVIOR SUPPORTS

Description: Piha Pono is a formal collaboration between the University of Hawai'i's Curriculum Research & Development Group (CRDG) and the Hawaii Department of Education (HDOE). The project fully integrates reading, mathematics, and behavior supports in ten schools with relatively high proportions of Native Hawaiian students and notably high levels of poverty as measured by eligibility for free or reduced-cost lunch. Piha Pono will leverage the resources from an ongoing CRDG grant that addresses mainly reading and will carry out major development and implementation of curricular approaches in Response to Intervention (RTI) mathematics and behavior supports.

The project goals and activities are to (1) continue refinement of RTI K–3 reading; (2) develop RTI K–3 mathematics program; and (3) develop/refine School-Wide Positive Behavior Supports (SWPBS) system. Number of students served annually is 4,968 (neighbor island count: 2,956 annually).

Partner: HDOE

Schools: Ten elementary schools, including four on Hawai'i Island (Kapi'olani, Keaukaha, Keonepoko, and Mountain View) that serve high percentages of students of Hawaiian ancestry are participating in Piha Pono. The project annually serves approximately 5,876 students (neighbor island count: 3,762 annually), more than half of whom are Native Hawaiian.

PRACTICES OF PHYSICS AND TECHNOLOGY (COMPLETED)

Description: 16 teachers total including 1 from Maui and 2 from the Big Island participated in a summer week-long workshop on physics and technology.

Partner: HDOE

Schools: Big Island - Kea'au High School

SUPER M: SCHOOL AND UNIVERSITY PARTNERSHIP FOR EDUCATIONAL RENEWAL IN MATHEMATICS [COMPLETED]

Description: SUPER-M created partnerships between graduate mathematics students and K–12 teachers to design innovative, developmentally appropriate, and engaging activities for K–12 students. The project goal was to improve the SUPER-M Graduate Fellows' communication, research, and teaching skills through interactions with teachers and students in K–12 schools. In addition, the Fellows enrich STEM content and instruction for their K–12 partners.



UNIVERSITY
of HAWAII®
MĀNOA



Number of teachers involved: 4 Big Island, 2 Maui, and 1 Moloka'i. The number of students involved: 350 across Big Island, Maui, and Moloka'i.

Partners: UHM Department of Mathematics. Funded by a National Science Foundation, Graduate STEM Fellows in K–12 Education (GK–12) program.

TEACHING SCIENCE AS INQUIRY (TSI) AQUATIC [COMPLETED]

Description: TSI is a year-long professional development course for middle and high school teachers (worth 12 PDE3 credits in the HDOE). TSI is a professional development model developed by the Curriculum Research and Development Group.

The TSI Aquatic course is a supportive, skills and content-based professional development experience that builds inquiry into teachers' existing professional practice through gradual and sustained implementation of skills within the classroom. TSI Aquatic provides a year-long place-based educational experience that enables teachers to teach ocean science concepts through the core disciplines of physics, chemistry, biology, and ecology. Teacher participants from public schools can earn credits that count toward re-licensure in Hawai'i.

In 2011–2012, the number of teachers involved: 12 Big Island, 15 Kaua'i, 2 Lāna'i, 12 Maui, and 1 Moloka'i.

Partners: *Funding:* Institute of Education Sciences (US DOE), National Oceanic and Atmospheric Administration (NOAA). *Development Partners:* UH Sea Grant Center for Marine Science Education, Center for Ocean Science Education Excellence – Island Earth (COSEE IE). *Implementation Partner:* Hawai'i Department of Education. *Facility Partners:* (Maui) Hawaiian Islands Humpback Whale National Marine Sanctuary, Maui Economic Development Board, (Big Island) Mokuāpapa Discovery Center, Hawai'i Preparatory Academy, Waimea Civic Center, North Hawai'i Education and Research Center, (Kauai) the Kaua'i Veteran's Center.

TEACHING SCIENCE AS INQUIRY (TSI) ENERGY [COMPLETED]

Description: TSI Energy is a professional development workshop for K–12 teachers on the Big Island, Maui, and Kaua'i (worth 3 PDE3 credits).

In 2009, the number of teachers involved: 18 Maui, 1 Moloka'i.

In 2010, the number of teachers involved: 18 Big Island, 13 Kaua'i.

Partner: Maui Economic Development Board

VOICE OF THE SEA TELEVISION AND ONLINE SHOW

Description: Voice of the Sea (VOS) is an award-winning public outreach television show that is being produced in collaboration with Hawai'i Sea Grant and funding from National Oceanic and Atmospheric Administration (NOAA) Pacific Services Center. The show recently received six 2014 Telly Awards, which are the premier regional television awards honoring excellence in programming.



UNIVERSITY
of HAWAII®
MĀNOA



The first year began airing in fall 2012, and now VOS is shown statewide in Hawai'i with the aim of improving viewers' understanding of ocean scientific research and the connection of the ocean to people living in the Pacific Ocean basin. The show profiles scientists and other professionals in Science, Technology, Engineering and Mathematics (STEM) careers.

In each episode of Voice of the Sea, the show host meets with science researchers and support staff at their research sites to develop the viewers' understanding of what it means to be an ocean scientist, and to expose viewers to current scientific research.

Voice of the Sea episodes align to the Exploring Our Fluid Earth curriculum materials and are supplemented with additional online media content, exposing the viewers to ocean science issues as they pertain to Hawai'i and the Pacific region.

The UH Sea Grant Center for Marine Science Education in collaboration with Sea Grant Extension Agents showcase UH research statewide (including professors and students).

UH Neighbor Island people showcased for 2011: Big Island – 2 UH Hilo Professors, 5 UH Hilo grad students; Maui – 2 UH Sea Grant extension agents and Maui College Professors, 1 adjunct professor.

Partner: UH Sea Grant

THE MAKERY CLOUD ON HAWAII ISLAND (COMPLETED)

Description: The Makery Cloud was part of the Archimedes Hawai'i Project, a STEM education related project at CRDG. The project staff worked with Connections Public Charter School in Hilo, the Hawai'i Academy of Arts and Sciences Public Charter School in Pahoa, and the West Hawai'i Explorations Academy Public Charter School in Kailua Kona during the years 2009–2011. Teachers from these three schools participated in STEM professional development.

Partners: Connections Public Charter School, Hawai'i Academy of Arts and Sciences Public Charter School, West Hawai'i Explorations Academy Public Charter School

TECHNOLOGY FOR UNTAPPED TALENT ON HAWAII ISLAND [COMPLETED]

Description: Technology for Untapped Talent was part of the Archimedes Hawai'i Project, a STEM education related project at CRDG. The project staff provided skills training in machine and fabrication work in Hilo. CAD-CAM-CNC technologies are becoming more critical as our nation works to bring back and increase design, manufacturing, and fabrication careers in the US. All participants learned basic skills in CAD-CAM design and CNC fabrication. Participants had hands-on experiences and were introduced to computer aided design (CAD), computer assisted manufacturing (CAM), and computer numerically controlled (CNC) machines. Most of the Hilo participants are continuing to work with a local Hilo Makery (private, non-UH) to gain more advanced skills.



UNIVERSITY
of HAWAI'I®
MĀNOA



Partners: State of Hawai'i Department of Human Services – Division of Vocational Rehabilitation



ACADEMIC DEPARTMENTS

Curriculum Studies (EDCS)

A'O HAWAII: VIEWING THE CLASSROOM AS A CANOE, THE CANOE AS A CLASSROOM

Description: As part of A'o Hawai'i: Viewing the classroom as a canoe, the canoe as a classroom (ESEA Improving Teacher Quality Grant), principal investigators Tara O'Neill and Patricia Halagao partner with teachers on all of these neighbor islands: Big Island (5), Maui (2), Kaua'i (2), Molokai (1) and Lanai (1).

Partners: HIDOE, Polynesian Voyaging Society, Pacific American Foundation, UH West Oahu

KULIA I KA NU'U [COMPLETED]

Description: Between 2010-2012, approximately 100 PK-12 teachers and teacher educators from Neighbor Islands have enrolled in EDCS 433 Interdisciplinary Science Curriculum and EDCS 450 Methods and Materials in Science under the Kulia I Ka Nu'u, NHEP, USDOE award (Pauline Chinn, PI). Courses support writing and delivery of place and culture-based science curricula. The award covered tuition, stipends for interisland travel, books and science supplies.

Partner: USDOE

MASTER OF EDUCATION (MED) IN CURRICULUM STUDIES

Description: The Middle and Secondary Level MED-CS cohort has been available online to students from Hawai'i Island since 2009. A teacher from Konawaena High School is currently in this program.

MASTER OF EDUCATION (MED) IN EARLY CHILDHOOD EDUCATION

Description: The MEd in Early Childhood Education (ECE) program was created to serve the ECE birth–5 needs of the state. Practitioners fly to Oahu for 1-month summer intensives, and complete the rest of the program from their home islands. Three students from West Hawai'i Island have graduated from the program.

MALAMA HONUA

Description: ESEA Title II award Malama Honua, STEM PD and Worldwide Voyage; enrolls 25 teachers statewide in EDCS 433 Interdisciplinary Science Curriculum, Malama Honua, Caring for the Earth (3 cr) and PEPS 310 Agriculture and the Environment (3 cr). The award runs from Sept. 1, 2014 and ends August 31, 2015.



UNIVERSITY
of HAWAII®
MĀNOA



Partners: Hawai'i Department of Education; School of Ocean, Earth, Science and Technology (SOEST), College of Tropical Agriculture and Human Resources (CTAHR); Curriculum Studies, College of Education

Schools: Participating teachers come from K-12 public and Hawaiian immersion charter schools on Moloka'i, Maui, Kaua'i, and O'ahu. Two teachers from Ke'au, Hawai'i withdrew due to lava displacing Paho students to their campus.

ETHNOMATHEMATICS AND STEM INSTITUTE

Description: In an effort to address issues of equitable and quality education, culturally responsive STEM pedagogy is explored across the State of Hawai'i based on the Mathematics Common Core State Standards and Next Generation Science Standards. The Ethnomathematics and STEM Institute supports professional development for public, public charter, and private school K-12 educators and students. In addition to classroom learning, experiential, place-based learning occurs throughout the Hawaiian islands at locations such as: Ka Papa Lo'i 'O Kānewai, Waikalua Loko Fishpond, Waimea Valley, Ma'o Organic Farms, Polynesian Voyaging Society, and Kalaupapa National Historical Park on Moloka'i.

Partners: University of Hawai'i System, Hawai'i State Department of Education, Pacific American Foundation, Pacific Resources for Education and Learning, Hawai'i P-20 Partnerships for Education, and the Polynesian Voyaging Society

Schools: Hawai'i Island participating schools include: Kea'au High School, Kealahou High School, West Hawai'i Exploration Academy Public Charter School, Konawaena Middle School, and UH Hilo.

Educational Foundations (EDEF)

MASTER OF EDUCATION: EDUCATIONAL LEADERSHIP IN THE ASIA-PACIFIC REGION (EDLEADS)

Description: The MEd EdLeads summer master's program is cohort-based and designed to meet the needs of teachers and other educators without career interruption. It runs for a period of two consecutive summers, each with five weeks of on-campus instruction, and the intervening fall and spring semesters. The entire program -- which is open to qualified applicants from Hawai'i, North America, the Asia-Pacific region, and elsewhere in the world -- may be completed in fifteen months. In 2000, this program won the National Association of Summer Sessions "Creative and Innovative Program Award" for the Most Outstanding Credit Program. Graduates of the program (1999-2012) include: 12 Big Island, 1 Kaua'i, 1 Lāna'i, and 9 Maui. In 2014 a new MEd cohort began with 19 participants, of whom 7 are from the neighbor islands.



UNIVERSITY
of HAWAII®
MĀNOA



Schools: In Pahoa, Ka'u, and Hilo

MASTER OF EDUCATION: PRIVATE SCHOOL LEADERSHIP (PSL)

Description: The MEd Private School Leadership (PSL) program is designed to meet the needs of educators in private, independent schools. The program is a collaboration of the Department of Educational Foundations and the Hawai'i Association of Independent Schools (HAIS). Cohort-based, the program runs for two consecutive summers and the intervening fall and spring semesters. The program is open to educators from all the islands of Hawai'i, North America, and elsewhere in the world. In 2014 nineteen students completed the program. A new cohort will begin in summer 2015. The deadline for applications is December 15, 2014.

Partners: Hawai'i Association of Independent Schools (HAIS)

Institute for Teacher Education (ITE)

BACHELOR OF EDUCATION (BED) IN ELEMENTARY EDUCATION

Description: The Bachelor of Education (BED) in Elementary Education is a 120-credit/4-year program. Candidates successfully completing the program are recommended for a K-6 elementary license to the Hawai'i Teacher Standards Board. This hybrid program includes a mixed delivery system of face-to-face and online course work. Candidates conduct clinical fieldwork in local school classrooms.

Partners: HIDOE, HPCSN

Schools: Holualoa Elementary, Honaunau Elementary, Kahakai Elementary, Kealakehe Elementary, Konawaena Elementary, Waikoloa Elementary & Middle, West Hawai'i Explorations Public Charter School

BACHELOR OF EDUCATION (BED) IN EARLY CHILDHOOD AND SPECIAL EDUCATION

[Applications are being accepted for Fall 2015]

Description: The Bachelor of Education (BED) in Early Childhood and Special Education is a 120-credit/4-year program. Candidates successfully completing the program are recommended for PK-3 and special education licenses to the Hawai'i Teacher Standards Board. This hybrid program includes a mixed delivery system of face-to-face and online course work. Candidates conduct clinical fieldwork in local school classrooms.

Partners: HIDOE, HPCSN, HAIS

Schools: TBD



UNIVERSITY
of HAWAII®
MĀNOA



POST-BACCALAUREATE CERTIFICATE IN SECONDARY EDUCATION (PBCSE)

Description: The Post-Baccalaureate Certificate in Secondary Education (PBCSE) is a 30-credit/18 month program. Candidates successfully completing the program are recommended for a 6-12 secondary license to the Hawai'i Teacher Standards Board. This hybrid program includes a mixed delivery system of face-to-face and online course work. Candidates conduct clinical fieldwork in local school classrooms.

Partners: HIDOE, HPCSN

Schools: Honokaa High & Intermediate, Kealahou High, Kohala High, Kohala Middle, Kona Pacific Public Charter School, Konawaena High, Konawaena Middle

MASTER OF EDUCATION IN TEACHING (MEdT)

[Applications are being accepted for Fall 2015]

Description: The Master of Education in Teaching (MEdT) is a 45-credit/2 year program. Candidates successfully completing the program are recommended for either a K-6 elementary or a 6-12 secondary license to the Hawai'i Teacher Standards Board. This hybrid program includes a mixed delivery system of face-to-face and online course work. Candidates conduct clinical fieldwork in local school classrooms.

Partners: HIDOE, HPCSN

Schools: TBD

Kinesiology and Rehabilitation Science (KRS)

MASTER OF SCIENCE IN ADAPTED PHYSICAL ACTIVITY

Description: The Master of Science in Adapted Physical Activity is a 30-credit/12-month program. Students come from O'ahu, neighbor islands and other places in the Pacific (e.g., Guam, Palau, American Samoa). Each cohort except one has included neighbor island students. Each cohort had six students total.

Partners: The Adapted Physical Activity program is funded by a five-year Federal Grant ending in 2016.

MASTER OF SCIENCE IN REHABILITATION COUNSELING

Description: The Master of Science in Rehabilitation Counseling is a 48 credit, three-year distance education program with approximately half to one third of current students residing on neighbor islands. Each Fall semester, the program initiates a new cohort comprised of 10 students. During this past academic year, the program has had 4 students from the Big Island: 1 from Waimea and 3 from Hilo.



UNIVERSITY
of HAWAII®
MĀNOA



Partners: State of Hawai'i-Division of Vocational Rehabilitation (DVR), private for-profit and nonprofit rehabilitation agencies

HAWAII CONCUSSION AWARENESS AND MANAGEMENT PROGRAM

Description: The Kinesiology and Rehabilitation Science (KRS) department coordinates the Hawai'i Concussion Awareness and Management Program (HCAMP). HCAMP is a Department of Health (DOH) funded program aimed at concussion baseline testing all 9th and 11th student athletes statewide. Baseline testing is done prior to the start of the season, and monitored by school-based athletic trainers. HCAMP uses the ImPACT cognitive test to baseline test all student athletes. ImPACT is then used again when a student athlete suffers a concussion.

Partners: State of Hawai'i, Department of Health Neurotrauma Supports, State of Hawai'i, Department of Education

Schools: HCAMP is involved with all high schools statewide, including those on the West side of the Big Island.

Learning Design and Technology (LTEC)

GRADUATE CERTIFICATE IN ONLINE LEARNING AND TEACHING (COLT)

Description: The Graduate Certificate in Online Learning and Teaching (COLT) is a graduate level program offered fully online requiring completion of 15 credits (5 courses). The purpose of the COLT is to develop competent online instructors and instructional designers. The certificate program provides those who desire to deliver learning materials at a distance with the foundational knowledge and skills required to design, develop, and implement effective materials for online learning. From 2009–2014, the program served the following number of neighbor island students: 13 Big Island, 2 Kaua'i, 1 Lāna'i, 11 Maui, and 1 Moloka'i.

Partners: HDOE, Association for Educational Communications and Technology (AECT), UH System

ONLINE MASTER OF EDUCATION IN EDUCATIONAL TECHNOLOGY

Description: The Online Master of Education in Educational Technology Program is a 33 credit academic program that allows students to complete most program requirements at a distance. The Online Master of Education LTEC program serves students throughout the state of Hawai'i and the mainland United States. From the 2009–2014, the program served



UNIVERSITY
of HAWAII®
MĀNOA



the following number of neighbor island students: 32 Big Island, 6 Kaua'i, 1 Lāna'i, 25 Maui, and 4 Moloka'i.

Partners: UH administrators from Maui, Kaua'i, and Big Island; HIDOE complex superintendents

Special Education (SPED)

SPECIAL EDUCATION FIELD EXPERIENCE, STUDENT TEACHING AND SEMINARS (WEST KONA SIDE BIG ISLAND)

Description: The Special Education Department partners with preK-12 public, private, and charter schools to assist in special education teacher preparation. Teacher candidates can fulfill their field experience in a traditional placement or an “in-place” field placement. Between Fall 2009 and Fall 2014, approximately 115 of the Special Education Post-Baccalaureate and Master of Education program teacher candidates resided on the Kona side of Big Island. Teacher candidates fulfilled their field experience in 17 schools out of 24 total schools in the Honokaa-Kealakehe-Kohala-Konawaena complex. To meet the needs of these neighbor island teacher candidates, field experiences and student teaching placements in Kona were identified and coordinated. In addition, each semester two to three UH-Manoa Special Education Department Faculty members living on the Big Island supervised these field experience and student teaching activities. UH-Manoa Special Education faculty members who live on Oahu also traveled to Kona for field supervision.

Schools: Holualoa Elementary, Honokaa High, Hookena Elementary, Innovations Public Charter, Kahakai Elementary, Kealakahe Elementary, Kealakehe Intermediate, Kealakehe High, Kohala Elementary, Kohala Middle, Kohala High, Kona Pacific Charter, Konawaena Middle, Konawaena High, Waikoloa Elementary & Middle, Waimea Elementary, Waimea Middle

Seminars: From fall 2013 to spring 2014, Sara Cook and Dawn Paresa facilitated seven seminars in Kona. The seminars provided information about the edTPA and to help prepare and guide the Post-baccalaureate teacher candidates for the completion of their edTPA portfolios.

TECHNOLOGY–BASED STRATEGIES FOR ENGLISH LANGUAGE LEARNERS [COMPLETED]

Description: Dr. Precille Boisvert (HIDOE) and Dr. Kavita Rao (UHM COE: SPED) have been collaborating on research projects related to using technology with English Language Learners. Dr. Boisvert is the ELL Resource Teacher for the West Hawai'i Complex Area (Big Island) and Dr. Rao is an Associate Professor at the College of Education. Research projects have focused on ways in which technology can be used to support ELLs with academic and



behavioral goals and used to engage students through culturally-responsive means. Below, are the specific projects conducted between 2009-2014.

1. Project: Multimedia Technology for High School English Language Learners

Research Team: Dr. Kavita Rao (UH:SPED), Dr. Precille Boisvert (HiDOE), Dr. Mary Lynn Garner (HiDOE)

Description: This project examined the outcomes of using multimedia technology on mathematics learning for ELL students enrolled in a high school algebra class. The classroom teacher Dr. Mary Lynn Garner assisted in the design and implementation of the study. The project involved 1 teacher and 24 students. Outcomes of this project were published in TESOL-J: Boisvert P., & Rao, K. (2014). Benefits of video self modeling for English learners. *TESOL Journal*. doi: 10.1002/tesj.135 and presented at the EdMedia 2014 conference: Rao, K. (2014, June). Universal Design for Learning and Multimedia Technology: Supporting Culturally and Linguistically Diverse Students. Paper presented at the Ed Media 2014 conference in Tampere, Finland.

School: Konawaena High School

2. Project: Video Self-Modeling for English Language Learners

Research Team: Dr. Kavita Rao (UH: SPED), Dr. Precille Boisvert (HiDOE), Dr. Caryl Hitchcock (UH CDS)

Description: This project used a single subject research design to examine the use of video self-modeling for reading fluency and comprehension with English Language Learners. The research team included two additional researchers from the UH-COE Center on Disability Studies, Dr. Caryl Hitchcock and Dr. Peter Dowrick. Results of the study are part of publications that are currently in development. One article about this project was recently published in the *Teaching Exceptional Children* journal. There were 2 teachers and 2 students involved in the project. An article about this project was published at Rao, K., Hitchcock, C., Boisvert, P. & Kilpatrick, E., Corbeill, C. (2012). Do it yourself: Video self-modeling made easy. *Teaching Exceptional Children*, 45(1). Retrieved from <http://tecplus.org/article/2>

School: Konawaena Elementary School

TEACHER PROFESSIONAL DEVELOPMENT WORKSHOPS: UNIVERSAL DESIGN FOR LEARNING IN THE K-12 CLASSROOM

Dr. Kavita Rao conducted workshops on Universal Design for Learning (UDL) for K-12 teachers in Big Island schools. The workshops focused on inclusive instructional strategies relevant for diverse students in Hawai'i classrooms. Teachers attending these workshops learned how the UDL framework can be applied to lesson planning and practiced using multimedia technology to create projects that address academic and behavioral objectives for students receiving special education services and for culturally and linguistically



UNIVERSITY
of HAWAII[®]
MĀNOA



diverse learners. Forty teachers attended workshops held in March 2013 and September 2014.

Partners: Hawai'i Learning Resources (non-profit organization)

Schools: Teachers from all schools on the Big Island were invited to attend. Several teachers from West Hawai'i schools (such as Kealakehe Complex and Konawaena Complex) attended two 6-hour PD workshops.



SUPPORT UNITS

Office of Student Academic Services (OSAS)

NEIGHBOR ISLAND OUTREACH

Description: The University of Hawai'i at Mānoa (UHM) College of Education (COE) is directly involved in reaching out to neighbor island students. The COE Office of Student Academic Services (OSAS) has two full-time faculty members living and working on the neighbor islands to support the needs of students in COE teacher licensure programs.

Direct services include:

- establishing effective working relationships with students;
- planning /developing/conducting informational/recruitment sessions;
- providing admissions services;
- providing ongoing counseling/advising;
- assisting with student retention;
- meeting with COE faculty regarding students or curricular concerns;
- providing information on graduation requirements and Praxis exams required for teacher licensure; and
- tracking teacher placement files and transcripts.

Activities include:

- **ADVISING**—Advising is done on a daily basis. Advising sessions may include any of the following specific activities: overview of program options, career counseling, employment opportunities, admission requirements, transcript evaluations, course selections, calculating grade point averages (GPA) and making recommendations if improvement is required, assistance with the application process to COE and the university, financial aid questions, graduation checks, teacher licensing requirements, and any concerns specific to the individual. Advising sessions may take place using any of the following methods: scheduled appointments, open advising at the office, telephone calls, email, Skype, walk-ins, group advising. Face-to-face appointments are an essential part of our neighbor island outreach and are highly valued by our neighbor island students.
- **RECRUITMENT**—Recruitment is an essential part of the OSAS mission. Teacher shortages are critical in rural areas of our state. Distance education programs offered by UHM/COE that we recruit for offer unique opportunities for neighbor island residents who want to become teachers but are not able to leave their homes and families to do so. The increased benefit of these distance education programs is to help license “home-grown” teachers, those already members of the local community and committed to stay on their home islands and teach. During recruiting sessions we interact with a variety of



UNIVERSITY
of HAWAII®
MĀNOA



people including, high school students and their parents, older non-traditional students who may be returning to school, under-represented minority groups, retired professionals who may want to teach as a second career, former military troops who want to pursue a career in teaching, individuals with a college degree who may be disillusioned with their current job or they may have lost their job, young mothers returning to the workforce, and any number of people interested in teaching as career.

- GRADUATION AUDIT—As with all OSAS responsibilities, graduation audits require careful attention to detail and extensive knowledge of various COE programs and policies. There are three steps implemented for each graduation audit. These steps are: (a) a graduation audit appointment with the student, (b) pre-graduation audits, and (c) final graduation audits, which includes recommendation (or not) for licensure.

OSAS performed these graduation audits for neighbor island students:

2009–2010: 13 Big Island, 12 Kaua'i, 21 Maui
2010–2011: 27 Big Island, 14 Kaua'i, 32 Maui, 1 Moloka'i
2011–2012: 8 Big Island, 10 Kaua'i, 18 Maui, 2 Moloka'i
Fall 2012: 14 Big Island, 7 Kaua'i, 1 Lāna'i, 10 Maui, 4 Ni'ihau
2013-2014: 23 Big Island, 8 Kauai, 1 Lanai, 8 Kauai, 19 Oahu students in Statewide programs

These COE Bachelor of Education (BED) and Post-Baccalaureate (PB) degrees were awarded on the neighbor islands:

2009–2010: 9 Big Island, 6 Kaua'i, 12 Maui
2010–2011: 13 Big Island, 11 Kaua'i, 21 Maui, 1 Moloka'i
2011–2012: 23 Big Island, 13 Kaua'i, 30 Maui
2013-2014: 24 Big Island, 18 Kauai, 31 Maui, 1 Molokai, 1 Lanai
Fall 2014 (Expected): 5 Big Island, 5 Maui, 13 Oahu students in Statewide Programs
Spring 2015 (Expected): 5 Big Island, 11 Maui, 3 Oahu students in Statewide Programs

Much of the contact on neighbor islands involves meeting with prospective students who may never become part of our programs, but these meetings do occupy considerable time. The figures below indicate how many contacts occurred each year. Some prospective students contacted the academic advisor multiple times, which is reflected here:

January 1, 2014 - November 10, 2014 Karen Wilson

Total: 1303 (Big Island=400) (Kauai = 260)

(Lanai = 35) (Mainland = 35) (Maui = 200) (Molokai = 25) (Other: Oahu or Mainland=350)

January 1, 2014 -November 10, 2014 Tom Benjamin

Total: 1123 (Big Island=40) (Kauai = 15) (Lanai=25) (Maui = 654) (Molokai - 8) (Other: Oahu or Mainland = 15)



UNIVERSITY
of HAWAII®
MĀNOA



NEW DISTANCE LEARNING LICENSURE PROGRAMS AVAILABLE IN KONA

[Applications are being accepted for Fall 2015]

The COE has added two new distance-learning programs that are available to all neighbor islands. The first is a Bachelor of Education in ECE/SPED ECE (PK-3). This two-year program is available to students as either a first baccalaureate or second baccalaureate degree. The first intake for this program will be in Fall 2015. In addition, the COE has signed a Memorandum of Agreement with Hawai'i Community College, which allows for a smooth transition from the AS in ECE from Hawai'i CC into this BEd program.

The second new program via distance learning is the Master of Education in Teaching (MEdT). This fulltime, two-year program is available to students only on neighbor islands. This MEdT will focus on the four core subject areas: English, Social Studies, Math or Science, but may also be available for other subject areas (e.g., art, world language), subject to local conditions. There has been a long-standing demand for such a program for the neighbor islands, where a number of residents have a bachelor's degree in fields other than education. The first intake for this program will be Fall 2015.

We are advertising these programs through public information sessions advertised on campus and in the local newspapers, through contact with West Hawai'i Area Complex Superintendent Art Souza, and via various online West Hawai'i calendar events. Public information sessions were held in October in West Hawai'i and our Outreach worker continues to follow up with people who attended those sessions. They will also be advertised at the Hawai'i College & Career Fair held in Waikoloa on November 20, as well as the Fairs held in Hilo on Nov 18 and 19. There also will be a public information session in Hilo to announce the programs on Nov 18. The director of the MEdT program and the new Special Education Recruitment specialist joined the College's Outreach person at the public recruiting sessions.

We will continue our partnership with the elementary, middle and high schools on the West Side of the Big Island to provide exceptional opportunities for our students.