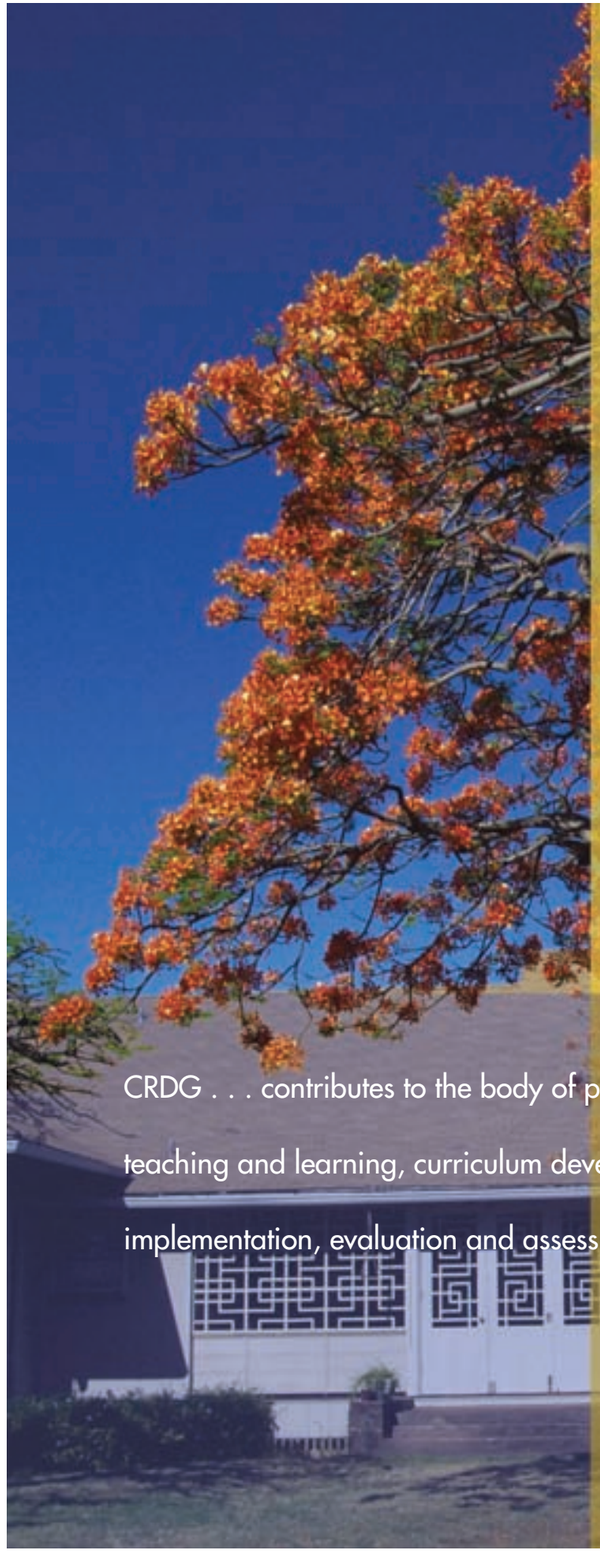
CRDG

Year in Review 2004

University of Hawai'i at Mānoa • College of Education • Curriculum Research & Development Group



CRDG Mission Statement

The Curriculum Research & Development Group (CRDG), with its Education Laboratory School, is an organized research unit in the College of Education at the University of Hawai'i that conducts research and creates, evaluates, disseminates, and supports educational programs that serve students, teachers, parents, and other educators in grades preK–12.

CRDG . . . contributes to the body of professional knowledge and practice in teaching and learning, curriculum development, program dissemination and implementation, evaluation and assessment, and school improvement.

"Committed to Quality"

We are pleased to present this 2004 Year in Review highlighting the work and successes of our dedicated educators, support staff, and students at the Curriculum Research & Development Group. We continue our nearly 40-year history as a learner-centered community of educators, recognized locally, nationally, and globally for quality research, design, and curricula that inspire dynamic teaching and learning.

With over $9 million in externally funded projects, CRDG staff focus their research, development, training, and dissemination efforts in five focus areas: mathematics and science; Hawaii, Asia and the Pacific; learning technologies; serving diverse learners; and highly effective school systems. In the following pages you will find stories about the people who make up CRDG, their commitment to quality, their on-going work, and their successes and accomplishments in 2004.

We gratefully acknowledge our collaborators, both individual and institutional, our generous funding agencies, and our publishing partners. These collaborations enable us to carry out our mission of researching, creating, evaluating, disseminating, and supporting quality educational programs for all students and teachers in grades preK though 12.

The Laboratory School students, who are an essential part of our research and development work, have also accomplished a great deal this year. For the third year, the Laboratory School is ranked among the top public schools in the state based on Hawai'i State Assessments. We had a National Merit Scholar finalist and semi-finalist. In addition, our students excelled in writing, speech, art, music, and athletics, winning individual and team awards in all these categories. Needless to say, we are proud of our faculty's and our students' accomplishments.

Aristotle noted that "we are what we repeatedly do. Excellence, therefore, is not an act, but a habit."

At CRDG we continue to be committed to excellence and quality.

Donald B. Young
Director, CRDG
Professor of Education

Curriculum Research & Development Group

The Curriculum Research & Development Group (CRDG) is an organized research unit in the College of Education at the University of Hawai'i. Since 1966, CRDG has served the educational community locally, nationally, and internationally by

- conducting research and creating, evaluating, disseminating, and supporting educational programs that serve students, teachers, parents, and other educators in grades preK–12; and
- contributing to the body of professional knowledge and practice in teaching and learning, curriculum development, program dissemination and implementation, evaluation and assessment, and school improvement.

CRDG operates the Education Laboratory, a Hawai'i New Century Public Charter School (ELS) as its R & D laboratory under an agreement with its local school board. About 60% of the CRDG contracts and grants require access to the ELS students on a regular and ongoing basis. ELS provides a K–12 student population in a controlled environment where CRDG faculty conducts its research and development work. Additionally, ELS serves as a demonstration site for improving K–12 education, while providing a high quality education for its 400 students. The students, randomly selected from among applicants to represent a broad cross section of the state population, provide real world data on ways all students can succeed.

This report highlights the amount and range of work done by CRDG's talented and creative staff in 2004. As a group, they administered 33 contracts and grants totaling over $9 million, published 41 books, articles, and multi-media products, and served teachers and students throughout the state of Hawai'i, the continental United States, and many other parts of the world.

Funding Agencies

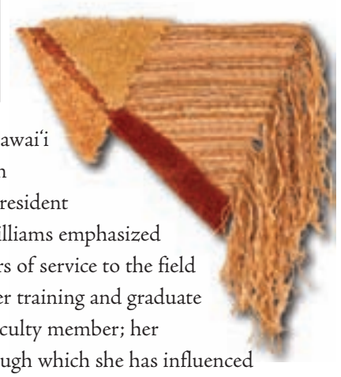
Go For Broke Foundation
Harold K. L. Castle Foundation
Hawai'i Association of Independent Schools
Hawai'i Department of Education
Hawai'i Department of Health
Japan United States Friendship Commission
The Kamehameha Schools (PASE)
David and Cecelia Lee Foundation
National Science Foundation
Open Society Institute
Quadey Foundation
U.S. Department of Agriculture
U.S. Department of Education
U.S. Department of Health
U.S. Department of State
University of Hawai'i

People

At CRDG, our strength is our people. These are just a few of the talented and creative people whose work is featured throughout this report.

Val Krohn-Ching

Val Krohn-Ching, a faculty member and head of the Art Section at CRDG, was selected as the Hawai'i Art Educator of the Year for 2004 by the National Art Education Association (NAEA). The award recognizes an individual for outstanding service and contribution to art education. In nominating Val for this award, Hawai'i Art Education Association president Betty Lou Williams emphasized Val's long years of service to the field in both teacher training and graduate studies as a faculty member; her teaching, through which she has influenced generations of students; her commitment to continuing education for teachers; and her contributions to the development of art education standards for the state of Hawai'i. In addition, Val is a working artist whose art pieces have been exhibited nationally and internationally, and a scholar whose publications emphasize cross cultural inquiry. Val has works in the permanent collections of the Hawai'i State Foundation on Culture and the Arts, the City and County of Honolulu, and the Honolulu Academy of Arts, as well as in private collections around the world. "Ms. Krohn-Ching exemplifies the highly qualified individuals active in the field of art education today: leaders, teachers, students, scholars, and advocates who give their best to the professions," said NAEA president Mary Ann Stankiewicz. Examples of Val's work can be seen locally in the lobby of the Paliku Theater at Windward Community College and at the Honolulu International Airport (near gate 20).



Pacific Triangle II received a national recognition award from the Hand Weavers' Guild of America at the Hawaii Craftsmen Fiber Arts Exhibition in 1990.

Kati Kuroda

CRDG was happy to welcome Kati Kuroda home in 2004. Kati had been teaching art and drama at the Laboratory School for thirteen years when she left in 1983. Feelings of burnout and a need to feed herself artistically led her to move to New York, where she ended up staying for twenty-one years working as a professional actress and director with such groups as Roundabout Theater, Manhattan Theater Club, Pan Asian Rep, and Shakespeare in the Park.

Kati believes it was fate that brought her back to the Laboratory School. The convergence of a desire to return home, an accident that kept her from working, and a call from ELS to see if she might be interested in teaching again, resulted in her return to the school in the fall of 2004. Kati is happy to be home, and feels she has so much more to give to the students after the experience she gained in New York. As for teaching again, she is "having a great time!"

Francis M. Pottenger and Sandra Shimabukuro

Francis M. Pottenger and Sandra Shimabukuro use the Hawai'i Interactive Television System, or HITS, to work with teachers throughout the state to upgrade science instruction in the elementary grades. Participants in the HITS programs have taken a professional development course to implement CRDG's award winning elementary

science program Developmental Approaches in Science, Health and Technology (DASH). The HITS programs, which are broadcast over cable television, provide field support to teachers on all the islands to help them implement the inquiry-based DASH program in their classrooms. The programs have been supporting elementary science education for over ten years and have served over 1,000 teachers. Recently, the program has helped teachers focus on action research in order to fulfill the DOE's new professional development requirements. The weekly sessions concentrate on grade level-specific science content, instructional and assessment strategies, sharing of classroom experiences, and guidance in preparing the required Learning Results Portfolio.

Erin Baumgartner

Since 1999 CRDG has partnered with the University of Hawai'i Ecology, Evolution, and Conservation Biology (EECB) program in a National Science Foundation project known as Graduate Fellows in Grades K–12 Education, GK–12 for short. The GK–12 program provides fellowships to EECB graduate students to work with K–12 teachers and students. The program's goals include improving the fellows' communication skills, strengthing teachers' content knowledge and ability to teach science as inquiry, and positively impacting student achievement. Erin Baumgartner has been involved since the program began.

Erin first got involved in K–12 education when she became a GK–12 fellow while pursuing

her PhD in zoology. As a fellow, Erin worked with the teachers and students at Kawananakoa Middle school, sharing her research in the behavioral ecology of fishes. When Erin completed her PhD in 2002, she joined the faculty at CRDG and became co-PI and education coordinator for the GK–12 project. She also became a GK–12 teacher partner when current fellow Chela Zabin joined her ninth-grade marine science class at ELS to work on a project to monitor intertidal biodiversity. Being immersed in all aspects of the program has been invaluable to Erin in her work with the GK–12 fellows, teachers, and administrators.

Morris Lai

Since January 2004, Morris Lai has been an active participant in the Evaluation Hui, a group of Maori and Kanaka Maoli (Native Hawaiian) evaluators working on the development and dissemination of evaluation methods appropriate for evaluations involving indigenous peoples. In November 2004 Morris, together with Fiona Cram from Katoa, Ltd. in Aotearoa (New Zealand), Kanani Aton from INPEACE in Hilo, and Alice Kawakami from the University of Hawai'i at Mānoa College of Education, presented a Presidential Strand panel entitled "Decolonizing Evaluation Practice: Indigenous Values and Methods as Improvements for Evaluation Practice" at the annual meeting of the American Evaluation Association (AEA) in Atlanta, GA. The panelists expect to receive support from the W. K. Kellogg Foundation to further develop the approach and to make presentations in 2005 at the AEA conference in Toronto, Canada and at the World Indigenous Peoples Conference on Education (WIPCE) in Hamilton, Aotearoa.

Measure Up is a Team Effort

The mathematics team of Barbara Dougherty, Claire Okazaki, Hannah Slovin, Fay Zenigami, and Linda Venenciano continued to attract international attention and interest in their work on the Measure Up elementary mathematics project in 2004. Barbara made presentations on the project at the International Congress of Mathematics Education in Copenhagen, Denmark, and Barbara and Hannah made presentations at the Psychology of Mathematics Education Conference in Bergen, Norway. The project has also attracted the attention of funders interested in improving student achievement in mathematics. To date, funding has come from a broad range of public and private organizations including the National Science Foundation, the U.S. Department of Education, Best Practices in Education, Open Society Institute, the Quadey Foundation, the David and Cecelia Lee Foundation, and the Harold K. L. Castle Foundation. The project team is currently at work on two book chapters they have been asked to author: one for an upcoming volume by the National Council of Teachers of Mathematics on research in the classroom, and another for an upcoming book on early algebra.

Focus

CRDG focuses on five interrelated fields of educational endeavor, addressing issues facing education in Hawai'i, the U.S. mainland, and other nations.

Research work at CRDG focuses on five interrelated fields of educational endeavor, each of which addresses a central issue facing education.

- Mathematics and Science Education
- Hawai'i, Asia, and the Pacific
- Serving Diverse Learners
- Educational Technology Development
- Designing Educational Systems

In each focus area, CRDG's faculty have accumulated a solid foundation in curriculum research and development; designing and delivering professional development for educators; evaluating and documenting evidence of impact on learning, teaching, and assessment; and disseminating and implementing effective programs.

GK–12 Project

CRDG continued its work with the National Science Foundation-funded GK–12 project this year with 11 fellows working in 10 schools throughout the state. This partnership with Ecology Evolution and Conservation Biology (EECB) program at UH Mānoa works to upgrade fellows' communication skills, provide teachers with content knowledge about cutting-edge research on Hawai'i's unique environment, and reduce the time between the generation of new scientific knowledge and its impact on student learning. CRDG provides the education component of the fellows' preparation, teaching them how to engage students and teachers in inquiry investigations related to their research.

Among this year's fellows are Aaron Hebshi, working with several schools on Kaua'i to monitor

wedgetail shearwater colonies, Kanesa Duncan, working with students at Castle High School while conducting research on hammerhead shark bioenergetics at the Hawai'i Institute of Marine Biology, and Chela Zabin, working with students at ELS to catalog and monitor intertidal biodiversity.

Special Education Teachers on Kaua'i Benefit from Mathematics Instruction

In the current educational clime, there is a heightened awareness of the need for all students to be successful in reading, writing, and mathematics. As one means of helping all teachers enhance their content knowledge in mathematics, the Kaua'i complex special education teachers visited the Education Laboratory School to observe how students with a wide range of achievement levels access higher-level mathematical content in middle grades mathematics and algebra I.

Following their visit, the CRDG mathematics faculty went to Kaua'i to conduct an algebra professional development institute modified for special education teachers. This 50-hour institute focused on

1. algebraic content appropriate for all students in middle and high school grades.
2. pedagogical strategies that support high student engagement and interaction.
3. fundamental learning theories from which to build and develop problem-solving abilities and algebraic understandings.
4. multi-dimensional assessment techniques.

The institute provided new insights for these teachers into the teaching and learning of mathematics for special education students. The participants in the course earned Professional Development & Educational Research Institute (PDERI) credits from the Hawai'i Department of Education if they produced a portfolio that demonstrated the implementation of institute ideas in the classroom.

Pihana Nā Mamo: The Native Hawaiian Special Education Project

Since 1990, Pihana Nā Mamo, a joint project with the Hawai'i Department of Education, has worked with Hawai'i schools to identify, develop, and implement effective programs to meet the unique needs of students in Hawai'i schools. Its mission is to improve education outcomes of K–12 special needs students of Hawaiian or part-Hawaiian ancestry. The current 5-year cycle, which began in 2000, focuses on these major components:

- Heluhelu targets key beginning reading skills in grades K–3 and provides intensive interventions for upper elementary and secondary students falling below key reading benchmarks.
- Kako'o is a pro-social and culturally appropriate support system for secondary students at risk for school failure and dropout.
- Mākua Hānai encourages and supports parent and community participation in the schools through a range of outreach programs.
- New and adapted curriculum materials are being created to meet the cultural needs of Hawaiian students and their families.

An on-going comprehensive evaluation, including multimedia documentation, tracks the project's effects.

The Archimedes Hawaii Project

The Archimedes Hawaii Project is dedicated to researching and developing technologies that solve accessibility and communication problems related to disability and aging, especially in education. To actively engage students' interest in science, math, technology and engineering, project staff have piloted the monthly "Archimedes Toy Workshop." In the workshops, teens experience careers in technology while learning electronics and IT skills, and provide a public service by adapting toys for use by children with disabilities.

Archimedes Hawaii has partnered with Technology Applications and Learning for Professional Achievement (TALPA), the Kuali'i

Native Hawaiian Science and Engineering Learning Communities at the University of Hawai'i at Mānoa, and the UH Mānoa College of Engineering, Women in Technology, isisHawaii, and Hawai'i middle and high schools. In addition to the

workshops, staff mentor promising engineering students of Hawaiian ancestry to create accessible learning technology through hands-on design projects. An initiative to research and develop technologies for seniors has been expanded to include a working community group and further development of the core (IDEAL- Intent Driven Environment for Active Living) technology.

Archimedes Hawaii hosted a National Science Foundation sponsored "Free Standards Group Accessibility Workgroup Meeting," an international group of accessibility experts and core open standards developers, to explore low cost solutions for accessible educational technology.

Measure Up

Now in its fourth year, the Measure Up elementary mathematics research project focuses on developing

algebraic thinking and problem-solving skills in children as young as first grade. The project is based on the work of Russian psychologists, mathematicians, and educators, and is being developed in collaborations with the Insititue of Developmental Psychology and Pedagogy in Krasnyarsk, Russia. Initial research is on the curriculum, which will eventually span grades grades 1–5, and is being carried out simultaneously at ELS and Connections Public Charter School in Hilo. This year's fourth graders are in their fourth year of the program.

Distance Learning Programs Expand Student Opportunities

John Southworth, CRDG specialist in distance learning–enrichment (DL–E) has teamed with former Associate Dean of Academic and Student Affairs at the College of Tropical Agriculture and Human Resources (CTAHR) Marlene Hapai to create StAmP Net.

StAmP Net gives students and teachers in high schools around the state an opportunity to use computers and telecommunications systems to learn about college opportunities available through CTAHR programs. Schools that participated in the program include Waimea and Kapa'a High Schools on Kaua'i; Maui, Lahainaluna, and Baldwin High Schools on Maui; Moloka'i High School on Moloka'i; Pāhoa, Waiākea, and Kea'au High Schools and Kanu O Ka'Āina PCS on the Big Island; and La Pietra School, Maryknoll School, Hanalani School, Waialua High School, Kamehameha Schools, Mid-Pacific Institute, Olomana School, Roosevelt High School, St. Anthony's High School, St. Andrew's Priory School, and ELS on O'ahu.

Hapai recently relocated to Hilo to direct the newly-founded Mauna Kea Astronomy Education Center (MKAEC) where she plans to use the DL–E model for outreach education to schools. CRDG/MKAEC partnerships are also planned in the Women in Technology project funded by the U.S. Department of Labor and in a pilot project that will work with the Mauna Kea observatories to share information on astronomy and Hawaiian culture associated with Mauna Kea with up to ten schools this year.

CRDG Summer Programs

In the late sixties, researchers at CRDG needed a group of summer-school students to field test lessons taught by a cadre of teachers being trained in the Foundational Approaches in Science Teaching (FAST) program. It was here that the idea of an inquiry-based summer science enrichment program was born. Thirty-four years later, CRDG continues to provide an active, experiential program, with offerings expanded to include mathematics and computer technology. The program is popular with students and teachers, some of whom are now

in a second generation of participation. Students arrive each day expecting the unexpected. They may explore new dimensions of science through research on the Web, spend the day in a tide pool or forest, build a rocket, examine a math concept using interactive technology and problem-solving activities, program a robot, or film a TV commercial. Learning for these students lives beyond textbooks.

In 2004, CRDG Summer Programs welcomed 111 students to the ELS campus, some from as far away as Texas, Japan, and Taiwan. Six weeks of exploration and discovery in science and computer technology included a new course in marine science for eighth and ninth graders that engaged students in research activities at the University of Hawai'i's Institute of Marine Biology at Coconut Island in Kāne'ohe Bay.

Singapore Connection

In 2004 the mathematics section of the Curriculum Research & Development Group and NeeAnn Polytechnic in Singapore continued work on a collaborative production of *Engineering Mathematics I*, a program for engineering students in their first mathematics course. The program, based on the underlying foundations of CRDG's *Algebra I: A*

Process Approach (2001), focuses on developing mathematical understanding through problem solving.

Production of the program involves personnel from both sites. The initial materials are developed at CRDG, then sent electronically to Singapore where a team reviews them and makes recommendations for revisions. The revisions are then discussed between the two teams until they are agreed upon. Lessons are then piloted and, based on these trials, other revisions are suggested.

The program includes a student textbook, teacher manual, tests and quizzes, and hands-on labs. NeeAnn Polytechnic is adding a computer-based technology component using software developed at their site. Completion of this project is targeted for summer 2005.

Teaching Science as Inquiry

CRDG has responded to the demand for improving the quality of teaching by providing professional development institutes that help teachers improve their understanding of science concepts and learn how these concepts can be taught through inquiry. The "Teaching Science as Inquiry" series of 2–3 day institutes provides an overview of inquiry as a pedagogical approach and engages teachers in inquiry investigations. Inquiry topics offered in 2004 include "Astronomy" and "Simple Machines" for elementary teachers, a unit on physical science called "Why Things Sink and Float" for middle- and high-school teachers, and "Aquatic Science" for high-school teachers. Additional units will be developed in 2005. CRDG-developed programs have been recognized as exemplary by the Expert Panel on Science and Mathematics Education and by the National Staff Development Council in their *What Works* series for improving teacher effectiveness and student learning.

International Work in Civics Education

Through four rounds of funding stretching over almost ten years, a unique partnership has grown between CRDG and a group of researchers at the Krasnoyarsk University in Russia. One result of this partnership has been the Civics Education for the Information Age (CEIA) project, funded by the U.S. Department of State. The project began in 1996 when 6 researchers from Krasnoyarsk University came to Hawai'i to be trained in a CRDG-developed civics education approach that took students into the community to experience democracy in action by becoming involved in local issues. Following a training course that looked at water rights on windward O'ahu, the six returned to Russia where they developed a series of units based on local issues in their communities. Nine years later, over 174 teachers and approximately 12,000 students throughout the Krasnoyarsk region and the oblasts of Abakan, Norilsk, Tomsk, Novosibirsk, and Irkutsk have used the program. Recently, organizers were asked by the Education Ministry of the Russian Federation to develop a version of the program as a civics curriculum for all of Russia. The formal, collaborative part of this project wrapped up in 2004 with a meeting of all the partners to look at the structure of the curriculum and implementation techniques as they have evolved over the life of the project, and to consider possible next steps.

Phase-I Study of the Effects of Versions of Professional Development on Curriculum Implementation and Scaling-Up (SCUP Project)

CRDG's Program Research & Evaluation Section is in its second year of a project funded by the National Science Foundation to look at the effects of professional development on curriculum implementation and the "scaling-up" of curricula. To do this, CRDG curriculum developers and researchers are developing alternative versions of the Foundational Approches in Science Teaching (FAST) program's professional development and are preparing data-collection instruments for the second phase of the project, which will begin in 2005. The project's long-term findings will have implications for revising the FAST program and for teacher professional development, curriculum implementation, and curriculum scaling-up nationwide.

Addressing the Needs of Diverse Learners

The School Success Project (SSP) was created in 2004 to respond to the increasingly diverse population of students enrolled at the Education Laboratory School (ELS). All students at ELS are educated with their peers in the general education setting, with access to all curriculum and activities.

An early focus of the project is to examine the existing supports within ELS and use the findings to develop a coordinated and structured support system to meet the specific needs of each child. Important components of this support system include early intervention strategies, structured monitoring systems for children with identified needs, and effective collaboration within the student's support team.

In addition to this basic system of support, SSP is working to create professional development to help teachers understand the challenges that arise from various challenging conditions and their implications for learning. Existing collaborations amongst teachers are becoming models of how curriculum modifications, accommodations, and teaching strategies can positively impact special needs students in regular classrooms. These will become stepping stones for school-wide professional development for teachers and curriculum developers, and will eventually lead to the design and implementation of a professional research agenda on the affects of ELS programs on student learning. The resulting research and models will then be used to help others to more appropriately address the needs of diverse learners.

Science Educators Address Adolescent Health Issues

Under a grant from the U. S. Department of Agriculture, CRDG worked with faculty at Purdue University to develop materials to teach sixth grade girls about osteoporosis and the need for calcium in their diets to combat this disease later in life. Francis Pottenger, Don Buchholz, Sandra Shimabukuro, and the Learning Technology Section of CRDG produced a CD/DVD set in which three children, in order to help care for a loved one, learn from a doctor about the need for calcium to help maintain strong bones. Pre-and post-tests on selected groups

that used the one-week program showed that it did have an impact on the target audience's intake of calcium. In addition, the program was awarded the Gold Award in Information Technology-Class 39-Best Innovative Use of Communication Technology from the Association for Communication Excellence (ACE) in Agriculture, Natural Resources, and Life and Human Sciences. Work has begun on a second USDA funded program with Purdue called "Healthy Weight," targeted for sixth grade girls and boys.

Extending the Golden Triangle to the Elementary Grades

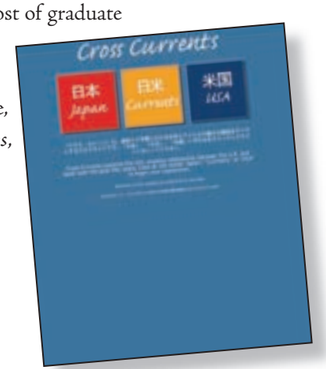
After many years of using the CRDG-developed Golden Triangle program as the basis of the ELS secondary English classes, students at the 8th and 10th grade levels consistently score very well on the English section of the Hawai'i State Assessment. Golden Triangle co-creator Jim Harstad has always believed that the program would be even more effective at a younger age. This year he has been testing that hypothesis by working with ELS students in the 3rd, 4th, and 5th grades. The Golden Triangle program has three components: daily journal freewriting, reading along, and dictation sentence study for grammar. Jim focused on the reading and writing portion of the program, reading all five books of the popular Harry Potter series with the students over the course of the school year. Preliminary data from a pre/post writing test as well as sample journal entries indicate that the students' overall language skills improved significantly.

Cross Currents

Linda Menton, Noren Lush, and Suzanne Acord began work in 2004 on a bi-national, bilingual, Web-based digital resource for the Cross Currents project. The resource features Japan and the United States, and the way the two countries have influenced each other over the last 50 years. It includes multimedia features such as Quicktime virtual reality images, film clips, charts, maps, and documents, in addition to pictures and text. The text is available in written and audio form in both English and Japanese.

Cross Currents is funded by the US-Japan Conference on Cultural and Educational Interchange (CULCON) and the Japan-United States Friendship Commission. The project team at the University of Hawai'i also includes Dr. Pat Steinhoff from the sociology department, Dr. Colin Macdonald from the communication department, and a host of graduate students.

The first theme developed for the site, *Work and Workplaces*, is now live at www.crosscurrents.hawaii.edu. Future themes, *Annual Cultural Cycles* and *Family Life* are in progress and will be available on the site soon.



Cross Current website page

CRDG's role is to create student activities, including a student scrapbook, for the site and to develop workshops for teachers.

Values for a Democratic Society

Pat Alvarez of the Social Studies Section teamed up with Tom Speitel, ThanTruc Nguyen, and Byron Inouye in the learning technology section to produce the *Values for a Democratic Society* DVD-ROM for use in character education classes in Hawai'i public schools. Initiated by the Go For Broke Educational Foundation, the project also involved the University of Hawai'i Colleges of Arts and Sciences, the Hawaii Department of Education, and the Nisei Veterans Endowed Forum Series.

The DVD-ROM is a resource that promises to keep on developing and giving. Part I contains 28 short videos, each focused on an individual in the local community who has demonstrated a commitment to democratic values. Part II features sample lessons showing the videos being put to use in the classroom. Filmed with the assistance of the class of 2005 at ELS, the lessons show students watching the character profiles, creating their own stories of people who have contributed to democracy, and becoming the story themselves by engaging in a service-learning project.

The third part of the resource is an interactive DVD-ROM component through which teachers can add student products and comments. A comprehensive database underlies all parts of the DVD-ROM so students and instructors can access its contents in a variety of ways. Kealakehe High School on the Big Island is currently pilot-testing the program. It is also creating its own videos as part of the project and as part of its own civic education program.

Values for a Democratic Society DVD-ROM

Focus

The Education Laboratory School

The Education Laboratory: A Hawai'i New Century Public Charter School (ELS) is in its fourth year as a public charter school. It is unique among schools in many respects.

ELS is operated by CRDG as a K–12 laboratory for researching, designing, testing, and evaluating effective approaches to improving learning, teaching, and assessment.

Students are selected to create a student body, evenly distributed by gender, that reflects the ethnic distribution of Hawaii and includes a broad range of student academic achievement and family socioeconomic levels.

Each year the school recognizes a department that has done outstanding work. In 2004 this award went to the Performing Arts department. Included in this department are the orchestra program led by Kevin Olafsson, the band program led by Ira Wong, the choral program led by Debbie Kelsey, and the ELS Funk Band and elementary music programs led by Chris Zorn. In addition to performing 9 concerts, both at school and in the community, the school had 15 students selected for the Hawaii Youth Symphony and 13 students selected for the Oahu Band Directors' Association Select Bands.

All students are in school for 7.5 hours each day, and take a challenging comprehensive curriculum that includes English, mathematics, science, social studies, art, music, performing arts, foreign languages, and athletics, as well as electives, each year. All students take the identical core program in non-segregated classes. All students graduate ready for college, work, and responsible citizenship.

The school curriculum is built on multi-year sequences of learning emphasizing creativity, inquiry, problem solving, and active learning. In most cases, students and teachers use CRDG-developed programs and approaches. The school serves as a demonstration site for these programs, hosting observers, researchers, and educators-in-training.

The broad range of activities included in the school's core curriculum allows its students to excel in state and national level programs in all areas. Approximately 75% of ELS students participate in activities outside of school in visual and performing arts, speech, mathematics, music, writing, and athletics. This year ELS students participated in the following programs:

National Merit Scholarship Program
- 1 finalist and 1 semi-finalist

2004 National Scholastic Art Exhibition
- 1 Gold Medal award
- 1 Silver Medal award
- 1 American Visions award

2004 Hawaii Regional Scholastic Art Exhibition
- 12 Gold Key awards
- 8 Silver Key award

Kaha Ki'i Congressional Art Exhibition
- 12 works selected for exhibit

Hawaii Education Association Essay Contest
- 2 1st place awards
- 1 2nd place award
- 1 3rd place award
- 5 Honorable Mentions awards
- 2 Special Merit awards

Hawaii Speech League Speech and Debate Championship Tournament
- Extemporaneous Speaking State Champion, National Championship Tournament Qualifier
- 2 2nd place winners
- 3 4th place winners
- 1 5th place winner
- 3 6th place winners

American Mathematics Competition
- 3 Gold Certificate winners
- 5 Silver Certificate winners
- 5 Bronze Certificate winners

Hawaii Regional Ocean Science Bowl
- 2nd place and 5th place teams

O'ahu Band Directors' Association Select Band
- 13 students

O'ahu Band Directors' Association High School Solo & Ensemble Competition
- 5 Gold awards
- 5 Silver awards
- 4 Bronze awards

Hawai'i Youth Symphony
- 15 students

First annual State Spanish Poetry Contest
- 1 Level One 1st Place award
- 1 Level One 2nd Place award
- 1 Level One 3rd Place award
- 1 Level Two Honorable Mention award

Pacific and Asian Affairs Council China Study Trip Scholarship
- 4 students

Hawaii History Day
- District winner, Essay Division
- 3rd place, Essay Division

University of Hawai'i at Mānoa Outreach College Summer Scholars program
- 34 students

Interscholastic League of Honolulu
- Students participated in 17 sports
- 2 All-State 2nd team awards
- 1 ILH All-Star 1st team award
- 2 ILH All-Star 2nd team awards
- 10 State Tournament qualifiers
- 2 Nissan High School Hall of Honor nominees
- 15 3-sport athletes

Model United Nations

Japan Bowl

World Quest

Interlochen Center for the Arts Summer Program

2004 Kennedy Center/National Symphony Orchestra Summer Music Institute

The ELS Community Service Club began in 2003 after a small group of students attended a presentation by Free the Children where they heard students their own age speak about their experiences growing up in Bosnia. This year the club grew to 40 members who worked on a variety of student-initiated projects in the community with the help of faculty advisor Suzanne Acord. In 2004 students volunteered at the Institute for Human Services family shelter where they played with and read to the children, decorated the Hawaii Kai retirement home for Christmas, participated in the Great Aloha Run food drive, and organized collections of necessities and money for victims of the typhoon in Yap and the tsunami in Southeast Asia.

Focus

Educational Laboratory School's Test Scores

A comparison of the Laboratory School's Hawai'i State Assessment test scores in reading and mathematics with the statewide average scores for School Year (SY) 2004 are shown in Figures 1–4. On the SAT in reading (Figure 1) and in mathematics (Figure 2), greater percentages of Laboratory School students than students statewide scored at average or above-average levels in each of the four tested grades. On the HCPS tests in reading (Figure 3) and in mathematics (Figure 4), greater percentages of Laboratory School students than students statewide met or exceeded proficiency.

For SY 2001–02, 2002–03, and 2003–04, in both Grades 8 and 10, Laboratory School students were ranked first or second (with one exception) in both reading and mathematics. Third graders were also ranked first on SAT in mathematics in each of the three years, and fifth-graders were ranked first in reading in 2003–04 and in mathematics in 2001–02.

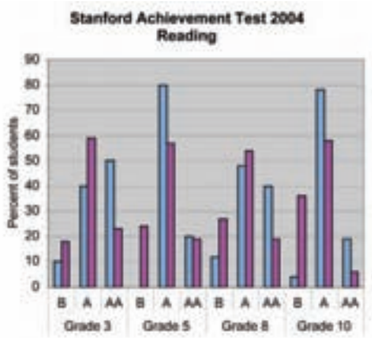


Figure 1

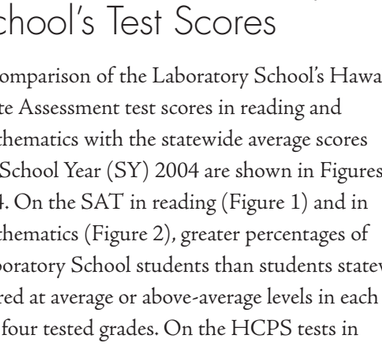


Figure 2

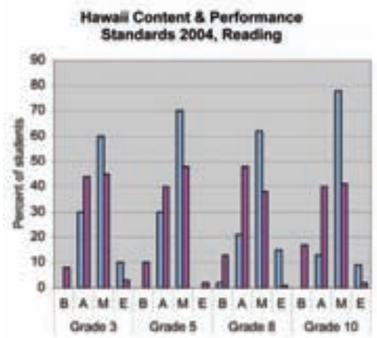


Figure 3

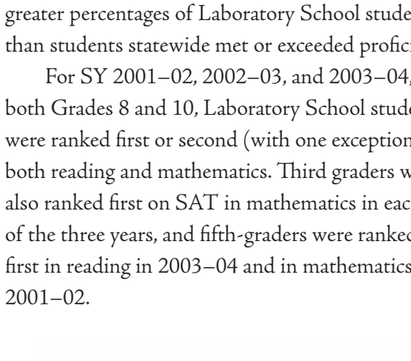


Figure 4

Marketing and Publication Services

In 2004, two of CRDG's sections, the Office of Dissemination and Outreach and the Educational Publications Center (EPC), merged to become Marketing and Publications Services (MaPS). From its beginnings as two creative teams that supported CRDG research projects, MaPS is now a one-stop center for educational resources and support,

marketing consultation, and publishing services, not only for our CRDG and College of Education family, but for other university departments, schools, and non-profit organizations. The multi-faceted MaPS office handles an array of services including marketing and disseminating CRDG-developed materials to schools locally, nationally, and internationally; coordinating professional development opportunities for teachers; creating quality layouts and graphic design; and providing photocopying, binding, laminating, and 4-color printing services.

2004 Highlights

- In collaboration with the CRDG project staffs, MaPS coordinated 20 professional development institutes in 5 states.
- MaPS hosted visitors to CRDG from different segments of the community through a series of open houses. The first welcomed teachers, principals, and other members of the educational community to our Spotlight on Professional Development. The second honored the Education Laboratory School's very talented art section with a display of work by faculty and by student-winners of the Scholastic Art Awards program Gold and Silver Key awards. In October, MaPS opened its own doors to provide tours of its facilities and introduce its many services to the educational and nonprofit communities.
- MaPS expanded capacity to print four-color jobs kept the printers busy throughout the year printing everything from journal covers and posters to its own new MaPS brochure.
- The MaPS staff was hard at work this year revising CRDG's website to allow for an even greater level of online customer service.

Focus

Co-Publishing Arrangements Expand the Reach of CRDG's Work

Over the years, CRDG has earned a reputation for researching, developing, and designing quality programs. Once developed, it is equally important that these programs be disseminated. CRDG publishes and disseminates many of its programs. It has also established partnerships with a number of other publishers.

The University of Hawai'i Press is recognized as a leading publisher of books and journals on Asia and Asian American and Pacific Island studies. Current CRDG titles co-published with UH Press include *China: Understanding Its Past*, *The Rise of Modern Japan*, *To Find the Way*, and *Island Fire*.

Growing Up Local, winner of the Ka Palapala Po'okela Award for Excellence in Literature in 1999 and the Artists Embassy International Literary/ Cultural Award in 2000, is a joint project of CRDG and Bamboo Ridge Press, a local press founded in 1978 to publish literature by and about Hawai'i's people.

CRDG has partnered with Mutual Publishing to co-publish *How to Play the Hawaiian Ukulele: 10 Easy Lessons*, and to distribute Mutual's informative and engaging series of marine science reference books: *Hawaiian Coral Reef Ecology*, *Hawaii's Sea Creatures*, *Hawaii's Fishes*, and *Sea Turtle Ecology*.

Ethics in Thought and Action, developed at CRDG, was published by Ardsley House, now part of the Rowman & Littlefield Publishing Group.

Scholarship

CRDG made the following contributions to the body of professional knowledge in teaching and learning, curriculum development, and assessment and evaluation in 2004.

Peer-Reviewed Journal Articles

Baumgartner, E. P., & Zabin, C. (2004). Student-scientist partnerships fill multiple needs. *Middle Matters*, 13(2).

Berg, K. F. (2004). Beginning a new partnership: Professional development school—Master of Education in Teaching style. *Journal of In-service Education*, *30*(3), 429–441.

Brandon, P. R., & Higa, T. H. (2004). An empirical study of building the evaluation capacity of K–12 site-managed project personnel. *Canadian Journal of Program Evaluation*, 19(1), 125–142.

Brandon, P. R. (2004). Conclusions about frequently studied modified Angoff standard-setting topics. *Applied Measurement in Education*, 17, 59–88.

Dougherty, B. J., Heid, M. K., d'Ambrosio, B., Reys, R., DeLoach-Johnson,I., Gutstein, E., & Hala, M. (March, 2004). An agenda for research action in mathematics education: Beginning the discussion. *Journal for Research in Mathematics Education*, 35(2), 74–80.

Pottenger, F. M. III, Son, Y. A., Joo-Hoon Kim, J. H., Hyun-Ju Park, H. J. (2004). Engineering Theory: A Conversational Bridge Between Theoreticians and Practioners in Discussion of Curriculum Development and Dissemination as Used in the DASH Program. *Journal of the Korean Association for Research in Science Education*, 24(4), 758–773.

Books/Media Published

Alvarez, P., Speitel, T. W., & Inouye, B. (2004). *Southeast Asian Music, Dance, and Theater DVD*. Honolulu: Curriculum Research & Development Group.

Alvarez, P. A., Speitel, T. W., Nguyen, T., & Inouye, B. (2004). *Values for a Democratic Society DVD ROM*. Gardena, California: Go for Broke Foundation.

Gray, M., Speitel, T. W., Inouye, B., Sosso P., & Nguyen, T. (2004). *FAST Electronic Resource DVD-ROM*. Honolulu: Curriculum Research & Development Group.

Chapters in Books

Dougherty, B. J. (2004). A toolkit approach: An elaborated Davydov model. In Stacey, K., Chick, H., and Kendal, M. (Eds.), *The Future of the Teaching and Learning of Algebra, The 12th ICMI Study* (International Commission on Mathematical Instruction) (pp. 71–96), Norwell, MA: Kluwer Academic Publishers.

Dougherty, B. J. (2004). Perspective. [Introduction for The Missouri Mathematics Effectiveness Project: An Experimental Study in Fourth-Grade Classrooms, Good and Grouws]. In Carpenter, T. P., Dossey, J. A., & Koehler, J. L. (Eds.), *Classics in Mathematics Education Research* (p. 16). Reston, VA: National Council of Teachers of Mathematics.

Other Publications

Afaga, L. (2004). *Project hiikulea, A 21st century community learning centers, Waianae complex, Hawaii Department of Education, implementation evaluation report, 2003–2004, Year 2*. Honolulu: University of Hawai'i at Mānoa, Curriculum Research & Development Group, Program Research & Evaluation Office.

Afaga, L. (2004). *An evaluation of the Physics, Physiology, & Technology 2004 summer teacher workshops*. Honolulu: University of Hawaii at Mānoa, Curriculum Research & Development Group, Program Research & Evaluation Office.

Afaga, L., (2004). *An evaluation of the Malama I Ka Aina project*. Honolulu: University of Hawai'i at Mānoa, Curriculum Research & Development Group, Program Research & Evaluation Office.

Scholarship

Brandon, P. R., & Linke, L. H. (2004). *Internal evaluation of Education Laboratory School for School Year 2003–04* (Report No. 2003–04/1). University of Hawai'i at Mānoa, Curriculum Research & Development Group, Program Research & Evaluation Office.

Brandon, P., Lawton, B., & Krohn-Ching, W. (2004). *Evaluation of the first year of the ARTS FIRST windward research project*. Honolulu: University of Hawai'i at Mānoa, Curriculum Research & Development Group, Program Research & Evaluation Office.

Brandon, P. R., & Lawton, B. (2004). *Student achievement results for the ARTS FIRST windward research project: Addendum to the report, "Evaluation of the first year of the ARTS FIRST Windward Research Project."* Honolulu: University of Hawai'i at Mānoa, Curriculum Research & Development Group, Program Research & Evaluation Office.

Brennan, C. A. (2004). *DASH for RMI, Teacher's Guide for Grade 1*. Honolulu: Curriculum Research & Development Group.

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Brennan, C. A. (2004). *DASH for RMI, Teacher's Guide for Grade 6*. Honolulu: Curriculum Research & Development Group.

Brennan, C. A. (2004.) *PREL Report: RMI DASH institute July 21-August 4, 2004*. Honolulu: Curriculum Research & Development Group.

Brennan, C. A. (2004). *PREL Report: RMI classroom observations, April 2004*. Honolulu: Curriculum Research & Development Group.

Dougherty, B. J. & Slovin, H. (2004). Generalized diagrams as a tool for young children's problem solving. In M. Johnsen-Hoines & A. B. Fugelstad, *Proceedings of the 2004 Psychology of Mathematics Education, Volume 2* (pp. 2-295 –2-302). Bergen University College, Bergen, Norway.

Dunn, H. H., Lai, M. K., & Kishi, G. (2004). *Pihana Nā Mamo grant performance report, April 11, 2003 – April 10, 2004*. Honolulu: University of Hawai'i, College of Education, Curriculum Research & Development Group.

Harpstrite, J., Kathleen Berg , et al. (2004). *Report of recommendations regarding evaluating and updating the Hawaii Department of Education competency-based high school diploma program (CBHSDP)*. Honolulu: University of Hawaii Curriculum Research & Development Group.

Harpstrite, J. (2004). Civic education in contemporary Russia, In *Proceedings of the 2004 Pacific Circle Consortium Conference on Civic Education*, Hong Kong, School of Foundations in Education, The Hong Kong Institute of Education.

Higa, T. F. (2004). *A year-1 report about Ko`olauloa: the Kahuku complex's 21st century community learning center project in school year 2003–2004*. Honolulu: University of Hawai'i at Mānoa, Curriculum Research & Development Group, Evaluation Office.

Lai, M. K., & York, S. E. (2004). *SPARK-Hawai'i year 1 evaluation report*. Honolulu: University of Hawai'i, Curriculum Research & Development Group.

Menton, L. 2004. *Hawaiian Journal of History*. Associate Editor.

Sjostrom, M. P. (2004). Teaching efficacy and attributions for student failure. In McDougall, D.E., & Ross, J.A. (Eds.). *Proceedings of the twenty-fourth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. II, pp. 909–916). Toronto: OISE/UT.

Slovin, H. & Dougherty, B. J. (2004). Children's conceptual understanding of counting. In M. Johnsen-Hoines & A. B. Fugelstad, *Proceedings of the 2004 Psychology of Mathematics Education Volume 4* (pp. 4–209–4–216). Bergen University College, Bergen, Norway.

Watson, R. L, Bigos, L., Chow, M., Jackson, B. T., Kalbus, J., & Young, D.B. (2004). *An analysis of internationalization: from vision to practice: second year of a two-year study*. Report of the ASCD Review Council. Alexandria, VA: Association for Supervision & Curriculum Development.

Under Development

Dougherty, B. J., Okazaki, C., & Zenigami, F. (2004). Measure up: Grade 4, Draft materials. Honolulu: Curriculum Research & Development Group.

Dougherty, B. J., Okazaki, C., & Zenigami, F. (2004). Measure up: Grade 3, Draft materials. Honolulu: Curriculum Research & Development Group.

Dougherty, B. J., Zenigami, F., Okazaki, C., & Slovin, H. (2004). Measure up: Grade 2, Draft materials. Honolulu: Curriculum Research & Development Group.

Dougherty, B. J., Okazaki, C., Zenigami, F., & Venenciano, L. (2004). Measure up: Grade 1. Honolulu: Curriculum Research & Development Group.

Kleinjans, D., Pottenger, F. M. III, and Carpenter, S. (2004). Physics, Physiology, and Technology, Version A. Honolulu: University of Hawai'i, Curriculum Research & Development Group.

Kleinjans, D., Pottenger, F. M. III, and Carpenter, S. (2004). Physics, Physiology, and Technology, Version B. Honolulu: University of Hawai'i, Curriculum Research & Development Group.

Grants and Contracts

Baumgartner, E. & Zabin, C. Student Monitoring of Intertidal Biodiversity. Hawaii Community Foundation. $600. 2004.

Brandon, P. R., Principal Investigator, and Young, D. B., co-Principal Investigator. Phase-I Study of the effects of professional development and long-term support on curriculum implementation and scaling-up. National Science Foundation. $1,102,161. 2003–2006.

Brandon, P. R. ARTS FIRST windward research project. U. S. Department of Education (via a subcontract with the Hawai'i Alliance for Arts Education). $345,000. 2003–2006.

Brandon, P. R. Waianae Community Learning Center evaluation. Hawai'i Department of Education. $43,000. 2003–2004.

Brandon, P. R. Evaluation of Physiology, & Technology 2004 Summer Teacher Workshops. U.S. Department of Education via a subcontract with University of Hawai'i at Mānoa, Physics and Astronomy Department. $2,000. 2004.

Brandon, P. R. Evaluation of the Malama I Ka Aina Project U. S. Department of Education via a subcontract with University of Hawai'i at Mānoa, College of Education. $50,971. 2004.

Dougherty, B. J. Measure Up. H. K. Castle Foundation. $150,000. 2004.

Dougherty, B. J. Measure Up. Cecilia Lee Foundation. $25,000. 2004.

Dougherty, B. J. Measure Up. E. R. Quady Foundation. $25,000. 2004.

Dougherty, B. J. Mathematics and Science Consortium. Pacific Resources for Education and Learning. $170,000. 2004.

Lai, M. K. U.S. Department of Education. Pihana Nā Mamo: The Native Hawaiian Special Education Project (fourth and fifth of five years). $6,200,000. 2003–2005.

Lai, M. K., & Berg, K. F. Kamehameha Schools. Proposal to Support INPEACE's Evaluation of Supporting Partnerships to Assure Ready Kids (SPARKS). $35,000. 2004–2005.

Menton, L. U.S. Department of Education. Instructional Materials on East Asia for Secondary Students. $456,321. 2004–2007.

Menton, L. Japan United States Friendship Commission. Cross Currents Project. $57,500. 2004–2005.

Menton, L. Technology, Innovations and Society with Sociology Department, UHM. $5,590. 2004

Menton, L. East Asia Council, Center for Japanese Studies, UHM. Cross Currents project. $5,000. 2004.

Okazaki, C. H. & Zenigami, F. University of Hawaii College of Education. Measure Up—Leaving No Teacher Behind. $35,840. 2004.

Scholarship

Pottenger, F. M. U.S. Department of Agriculture with Purdue University. Research-centered Web-based Student Communities: Multidisciplinary Approach for Adolescent Obesity Prevention. $234,556. 2004–2005.

Saka, S. M. Hawai'i Department of Education. Hawai'i School Youth Risk Behavior Survey. $24,965. 2004.

Saka, S. M. Kamehameha Schools. Tabulation–Hawai'i Youth Risk Behavior Survey Data. $11,000. 2004.

Saka, S. M. Hawaii Department of Health. Hawai'i School Health Surveys-2003. $184,540. 2003–2004.

Saka, S. M. Hawaii Department of Health. Hawai'i Nutrition Education and Training Needs Assessment Survey, $47,180. 2003–2005.

Saka, S. M. Hawai'i Department of Education. 2003 Youth Risk Behavior Survey Analysis and Report. $24,965. 2004–2005.

Young, D. B. Hawai'i Association of Independent Schools. Studying the Teacher Shortage Situation in Hawai'i. $27,250. 2003–2004.

Young, D. B. Hawaii Department of Education. Education Laboratory School: A New Century Public Charter School. $2,067,123. 2003–2004.

Young, D. B. & Baumgartner, E., Co-Principal Investigators National Science Foundation. The GK–12 Program in Hawai'i: Using Native Biota for Science Education. $1.482,270. 2003–2006.

Young, D. B. National Science Foundation with Stanford University. Embedding Assessments in the FAST Curriculum: On Beginning the Romance among Curriculum, Teaching and Assessment. $308,672. 2001–2004.

Young, D. B. Hawaii Department of Education. Education Laboratory School: A New Century Public Charter School. $2,090,050. 2004–2005.

Young, D. B., & Berg, K. F. Hawai'i Department of Education. CRDG Proposal to Assist the Hawai'i Department of Education in Evaluating and Updating the Competency-Based High School Diploma. $8,000. 2004.

Presentations

Acord, Suzanne. Teaching Political Ideas: Chinese Revolutionary Opera and Japanese Kami Shibai. Honolulu: Hawai'i International Conference on Education. January 2004.

Alvarez, P. A. Back In Focus: Restoring Lives to the History Classroom. Honolulu: Brown Bag Biography Series, Center for Biographical Research, UH Mānoa, March 2004.

Alvarez, P. A. Workshop, China: Understanding Its Past. Honolulu: Hawaii International Conference on Education, January 2004.

Baumgartner, E. Training scientists to effectively communicate with K–12 students and teachers. Seattle: American Association for the Advancement of Science Annual Meeting Forum for School Science. February 2004.

Baumgartner, E., Zabin, C., & Young, D. B. Shaping Powerful Learning with Student-Scientist Partnerships. New Orleans: 2004 Annual Meeting of the Association for Supervision and Curriculum Development. March 2004.

Baumgartner, E., Zabin, C., Ulep, K., & Trias, R. Between Hawaiian Tides: A Suprising Diversity in Oahu's Intertidal. Honolulu: Hawaii International Conference on Education. January 2004.

Baumgartner E., Zabin, C. Vest, C. Ho, B. Pedrina, K., Ing, C. & Wu, J. Surprising Numbers of Invaders in Oahu's Intertidal. Honolulu: Hawaii Conservation Conference, July 2004.

Berg, K. F. The Hawai'i Informed Prevention System (HIPS): An Effective Use of Data to Promote School Safety. Honolulu: Hawaii International Conference on Education, January 2004.

Berg, K. F. A Model for Using Distance Learning to Promote School Safety. San Diego, CA: American Educational Research Association Annual Meeting, April 2004.

Brandon, P. R. What methods best support evaluative judgments? Atlanta: American Evaluation Association, plenary session chairperson, 2004.

Brandon, P. R. How does the federal government influence the nature of the evaluation profession? Atlanta: American Evaluation Association plenary session chairperson, 2004.

Brandon, P. R., Young, D. B. Taum, A., Gray, M., Speitel, T. W., Pottenger, F. M., Scarlett, T., & Lawton, B. Phase-I study of the effects of professional development and long-term support on program implementation and scaling up. Washington, D.C.: National Science Foundation Principal Investigators' meeting.

Brandon, P. R. Using test standard-setting methods in program evaluation. Honolulu: American Psychological Association, July 2004.

Brennan, C. A. Technology, The Hands-On of Elementary Science. Atlanta: National Science Teachers Association, April 2004.

Brennan, C. A. Concept Mapping for All Kinds of Learners. Atlanta: National Science Teachers Association, April 2004.

Brennan, C. A. Gyotaku for Elementary Students. Atlanta: National Science Teachers Association, April 2004.

Brennan, C. A. Technology, The Hands-On of Elementary Science. Atlanta: National Science Teachers Association, April 2004.

Brennan, C. A. DASH. Mystic, CN: CN Science Curriculum Showcase sponsored by ASCD, November 2004.

Dougherty, B. J. & Slovin, H. Generalized diagrams as a tool for young children's problem solving. Bergen, Norway: International Meeting of the Psychology of Mathematics Education, July 2004.

Dougherty, B. J. Measure Up: Multiplicative Structures. Bergen, Norway: Presentation to the Early Algebra Working Group, Psychology of Mathematics Education International Meeting, July 2004.

Dougherty, B. J. Measure Up: A Quantitative View of Algebra for Young Children. Copenhagen, Denmark: Presentation for the Algebra Working Group, International Congress of Mathematics Education, 2004.

Dougherty, B. J., & Slovin, H. Measure Up: A Research Approach to Elementary Mathematics. Philadelphia: Research Presession of the National Council of Teachers of Mathematics Annual Meeting, April 2004.

Harpstrite, J. High-tech, Student-centered Teacher Education. Hyogo University, [serial online], 2004. Available from http:// www.ceser.hyogo-u.ac.jp/naritas/colloquium2004/kimono/Japan2004.pdf.

Kelly, M. K. and Young, D. B. Science achievement at Kamehameha Schools: What can we learn from TIMSS performance assessments? Keaau, HI: Kamehameha Schools 2004 Research Conference on Hawaiian Well-being, October 2004.

Lai, M. K., Yap, M., & Dunn, H. Culturally Appropriate Evaluation Methods & the Use of Mo'olelo (Stories). Kea`au, HI: Kamehameha Schools 2004 Research Conference on Hawaiian Well-being, October 2004.

Lai, M. K., Cram, F., Kawakami, A. J., & Aton, K. How can indigenous values and methods improve the practice of evaluation? Decolonizing evaluation practice: Returning the gaze. Atlanta: American Evaluation Association, panel presentation. 2004.

Lush, N., & Acord, S. Using Cross Currents, a Digital Web-Based Multimedia Resource, with Secondary School Students. Honolulu: Center for Japanese Studies, University of Hawaii, November 2004.

Menton, L. K. Promoting Democracy in Occupied Japan: Teaching the Japanese People About the 1947 Constitution. Hong Kong: Pacific Circle Consortium Annual Conference, April 2004.

Menton, L. K. & Alvarez, P. Extraterritoriality: Past and Present. Honolulu: Hawaii International Conference on Education, January 2004.

Menton, L. K. Promoting Democracy in Occupied Japan: The 1947 Constitution. Tokyo: East West Center Association International Conference, August 2004.

Menton, L. K. Public High Schools in Hawaii: A Historical Perspective. Honolulu: Hawaii Educational Research Association, April 2004.

Menton, L. K. Missionaries in Hawaii 1820–1840. Honolulu: for students from Luther College, Decorah, Iowa., January 12, 2004.

Scholarship

Okazaki, C. An Overview of Measure Up: Algebraic Thinking through Measurement. Philadelphia: NCTM National Conference, poster session, April 2004.

Okazaki, C. Panel member, Calling All Teacher Researchers! Interactive Help from the NCTM Research Committee. Philadelphia: National Council of Teachers of Mathematics (NCTM) Research Council, April 2004.

Pottenger, F. M. Education Laboratory School and its Science Section Programs and Projects. Honolulu: Hawaii International Conference on Education, January 2004.

Pottenger, F. M., & Brennan, C. B. What Are the Lasting Effects of Summer Professional Development Programs? Atlanta: National Science Teachers Association, April 2004.

Pottenger, F. M. Civic Education for the Information Age (CEIA) Project Retrospective and Thoughts. Hong Kong: Pacific Circle Consortium 28th Annual Conference, April 2004.

Saka, S., Using Data: Examples from the Youth Risk Behavior Survey (YRBS). Honolulu: Hawai'i Department of Education 5th Annual Health Celebration Conference, November 2004.

Saka, S., & Lai, M. Comparison of Hawaiian and Non-Hawaiian Public Middle and High School Students' Responses Related to Risky Behaviors: Results from the 1997, 1999, and 2001 Hawai'i Youth Risk Behavior Surveys (YRBS). Kea'au, HI: Kamehameha Schools 2004 Research Conference on Hawaiian Well-being, October 2004.

Saka, S. M. Large-scale, Coordinated Surveys Administration: Lessons Learned. Atlanta: at the American Evaluation Association, roundtable presentation, November 2004.

Shimabukuro, S. K., & Pottenger, F. M. III. Essence of DASH, Grades K–6. Honolulu: Hawaii Interactive Television System. 2003–2004.

Shimabukuro, S. K., & Pottenger, F. M. III. Grade K–3 Advancing Standards Using the Developmental Approaches in Science, Health, and Technology (DASH) Program. Honolulu: Hawaii Interactive Television System. 2004.

Shimabukuro, S. K., & Pottenger, F. M. III. Grade 4–6 Advancing Standards Using the Developmental Approaches in Science, Health, and Technology (DASH) Program. Honolulu: Hawaii Interactive Television System. 2004.

Sjostrom, M. P. Teaching efficacy and attributions for student failure. Toronto: International Group for the Psychology of Mathematics Education, North American Chapter, October 2004.

Sjostrom, M. P. The Write Way to Mathematics Learning: Math Journal Prompts. Philadelphia: National Council of Teachers of Mathematics, April 2004.

Sjostrom, M. P. Learning to Write/Writing to Learn: Using Mathematics Journal Prompts to Enhance Student Learning. Philadelphia: National Council of Supervisors of Mathematics, April 2004.

Slovin, H., & Dougherty, B. J. Children's conceptual understanding of counting. Bergen, Norway: International Meeting of the Psychology of Mathematics Education. July 2004.

Slovin, H. Measure Up: A Research Perspective on Algebra for Young Children. Philadelphia: National Council of Teachers of Mathematics (NCTM) Research Pre-session, April 2004.

Slovin, H., & Venenciano, L. Shaping the Learning Environment By Starting the School Year in a Mathematical Frame of Mind. Philadelphia: National Council of Supervisors of Mathematics, April 2004.

Slovin, H., & Venenciano, L. From intuition to proof–making mathematics accessible to all students. Philadelphia: National Council of Teachers of Mathematics, PA, April 2004.

Slovin, H. Children's conceptual understanding of counting. Bergen, Norway: International Meeting of the Psychology of Mathematics Education. July 2004.

Southworth, J. H., & Hapai, M. Distance Learning - Enrichment (DL-E): Valuable Key to Classroom Technology Integration. Location: National Science Teachers Association (NSTA), March 2004.

Taum, A. K., Reveles, C., Hilberg, S., & Estrada, P. Teaching Alive! A sociocultural approach to teaching language and literacy. Zuni, NM: presented at A:Shiwi Elementary School, November, 2004.

Taum, A. K., Wyatt-Beck, T., & Yamauchi, L. A. Using a teacher study group to promote enactment of the Five Standards for Effective Pedagogy in a culturally relevant high school program. Honolulu,: Hawai'i Educational Research Association Conference, April 2004.

Taum, A. K., & Wyatt-Beck, T. Making Meaning: connecting school to Hawaiian students' lives. Honolulu: Kamehameha Schools Research Conference on Hawaiian Well-Being, October 2004.

Taum, A. K. The Hawaiian Studies Program: A successful model of community involvement. Zuni, NM: presented at A:Shiwi Elementary School, November 2004.

Yamauchi, L. A., Taum, A. K., & Wyatt-Beck, T. The effects of a professional development study group on teachers' enactment of the Five Standards for Effective Pedagogy. San Diego, CA: Paper presented at the meeting of the American Educational Research Association, April 2004.

Young, D. B., & Pottenger, F. M. Foundational approaches in science teaching (*FAST*), an enduring curriculum: its theoretical and pedagogical foundations. Orono, ME: 2004 Summer Conference: Integrating Science and Mathematics Education Research into Teaching. June 2004.

Young, D. B., & Pottenger, F. M. Introduction to FAST: teaching science as inquiry. Orono, ME: 2004 Summer Conference: Integrating Science and Mathematics Education Research into Teaching. June 2004.

Young, D. B. FAST professional development: an essential component to success. Orono, ME: 2004 Summer Conference: Integrating Science and Mathematics Education Research into Teaching. June 2004.

Young, D. B. FAST, an enduring curriculum: data on effectiveness. Orono, ME: 2004 Summer Conference: Integrating Science and Mathematics Education Research into Teaching. June 2004.

Young, D.B., & Beer, R. Foundational approaches in science teaching: teaching science as inquiry. Orono, ME: 2004 Summer Conference: Integrating Science and Mathematics Education Research into Teaching. June 2004.

Young, D. B. Standards, accountability, and the curriculum. Honolulu: League of Women Voters Marion G. Saunders Memorial Forum. August 2004.

Zenigami, F., Okazaki, C., & Thatcher, P., Helping Teachers Measure Up to Teaching Innovative Mathematics Programs: A Professional Development Model from Workshop to Implementation. Philadelphia: National Council of Supervisors of Mathematics (NCSM) National Conference, April 2004.

Zenigami, F. Explorations in Algebra: Activities to Promote Student Understanding. Philadelphia: National Council of Teachers of Mathematics, April 2004.

Awards and Recognitions

Waldtraut (Val) Krohn-Ching was named Hawai'i Art Educator of the Year for 2004 by the National Art Education Association (NAEA).

Barbara Dougherty was named Chair of the Research Committee, National Council of Teachers of Mathematics.

Personnel

CRDG Organization

College of Education
Randy Hitz, Dean

Curriculum Research & Development Group
Donald B. Young, Director
Kathleen Berg, Associate Director
Nancy Fujii, Secretary
Sheryl Nohara,Administrative Officer

Research and Development Sections

Art
Val Krohn-Ching, Section Head

English
Cheryl Harstad, Section Head

Laboratory School
Jane Burke, Principal
Keoni Jeremiah, Vice-Principal
Audrey Maedo, Secretary

Learning Technology
Thomas W. Speitel, Section Head

Mathematics
Barbara Dougherty, Section Head

Program Research & Evaluation
Paul Brandon, Section Head

Science
Francis M. Pottenger, Section Head

Social Studies
Linda Menton, Section Head

Systems
Arthur R. King, Section Head

Marketing and Publication Services (MaPS)
Kathleen Berg, Section Head
Helen Au, Marketing Manager

Acord, Suzanne
Social Studies
BA 1996, St. Edward's; MA 2003, Hawai'i

Afaga, Lorna
Evaluation
BA 1977, MPH 1981, Hawai'i

Aga, Anoilani
Foreign Language
BA 2003, Hawai'i

Alvarado, Katherine
Elementary
BA 1994, MEd 1998, Guam; MHR 1999, Oklahoma

Alvarez, Patricia
Social Studies
BA 1966, Minnesota; MA 1981, PhD 1994, Hawai'i

Apio, Marlon
Foreign Language
BA 1998, Hawai'i

Asato, Darrell
Marketing and Publication Services
BFA 1979, Hawai'i

Au, Helen
Marketing and Publication Services
BBA 1993, Hawai'i

Baumgartner, Erin
Science
BA 1996, Kansas; PhD 2002, Hawai'i

Berg, Kathleen F.
Administration
BEd 1973, PD 1973, MEd 1980, PhD 1992, Hawai'i

Bombeke, Kika
Foreign Language
BA 1992, Maryland at College Park; MA 2001, Hawai'i

Brandon, Paul R.
Evaluation
BS 1970, Portland State; MEd 1978, PhD 1983, Hawai'i

Brennan, Carol A.
Science
BA 1965, Catholic University of America; MS 1984, Nebraska; EdD 1996, Hawai'i

Buchholz, Donald
Science
BA 1968, MA 1970, UC Berkeley

Bukes, James G.
Athletics
BEd 1974, MEd 1985, Hawai'i

Burke, Jane
ELS Administration
BS 1968, Campbell U; MA 1977, North Carolina at Chapel Hill

Carpenter, Stacey
Science
BS 2002, Hawai'i

Chan, Raymond
Mathematics
BS 2002, Hawai'i

Chang, Nancy
Cafeteria
BS 1973, UC Berkeley

Chin, Mary
Performing Arts
BA 1976, Mars Hill; MFA 1980, North Carolina at Greensboro; PhD 1995, Hawai'i

Chun, Malcolm
Pihana Nā Mamo
BA 1976, MA 1981, Hawai'i

Clark, Robin
Pihana Nā Mamo
BA 1994, Hawai'i

Collins, Marie
Science
MS 1996, Massachusetts

DaSilva, Maria
Elementary
BA 1990, Antioch

Doi, Douglas M.
Art
BA, BFA 1976, MFA 1983, Hawai'i

Dougherty, Barbara
Mathematics
BSE 1982, MA 1985, Northeast Missouri State; PhD 1989, Missouri

Doyle, Craig K.
Elementary
BA 1972, PD 1989, MEd 2002, Hawai'i

Drick, George R.
English
BA 1966, Yale; MAT 1971, Harvard; MBA 1978, Chicago

Dunn, Hugh
Pihana Nā Mamo
BEd 1990, MEd 1999, Hawai'i

Personnel

Erbe, Piilani
Social Studies
BA 2001, Brigham Young

Estomago, Pete
Athletics
BA 1967, Chaminade; MEd 1998, Hawai'i

Fordham, Cecilia
Learning Technology
BS 1959, SUNY Fredonia; MFA 1976, Hawai'i

Fujii, Alycia
Marketing and Publication Services
BA 1996, Hawai'i

Fujii, Nancy
Administration
BA 1979, Hawai'i

Gabrielli, Sandy
Learning Technology
BS 1990, Nevada, Reno

Gill, Kevin
Learning Technology
2000, California Regional Occupational Programming Information Technology Training Series

Gray, Mary E.
Science
BS 1986, Oregon; PD 1990, MEd 1991, Hawai'i

Hamasaki, Gayle
Marketing and Publication Services
BEd 1979, MLS 1981, Hawai'i

Hamilton, Marybeth
English
BA 2000, Seattle; MAT 2003, Portland

Harpstrite, James J.
Social Studies
BA 1963, Colorado; MA 1967, Hawai'i; PhD 1971, Michigan State

Harstad, Cheryl A.
English
BA 1967, MA 1970, Hawai'i

Harstad, James
English
BA 1963, Washington; MA 1974, Hawai'i

Hartle, Alison
English
BA 1992, UC Berkeley; MA 1996, Hawai'i

Hashimoto, Val
Science
BS 1993, HPU; MAEd 2003, U Phoenix

Higa, Terry Ann
Evaluation
BEd 1977, MEd 1978, MEd 1994, Hawai'i

Hoof, Jennifer
Science
BS 2002, Washington; MS 2004, Hawai'i

Inouye, Byron
Learning Technology
BFA 1993, Hawai'i

Jeremiah, Albert (Keoni)
ELS Administration
BA 1993, Hawai'i; MA 2002, San Francisco

The Chinese lunar calendar lists "imaginative and charming" as the best qualities of the rat; "people born in the Year of the Rat are true to the ones they love." **Diane S. McCoy Witt** retired in 2004 after 32 years of loving the work and being loved by the people she worked with at CRDG. Always imaginative, Diane blended her formal training in music, her spiritual and artistic leanings, and her academic training in education and research into all she did. She began her CRDG career working with Dr. Leon Burton to develop and disseminate a then-cutting-edge elementary music education program. She and Leon went on to write instruction books for guitar and ukulele, then to concentrate on early childhood development. Together they created a comprehensive kindergarten program that included instruction in the arts along with the usual academic development activities. Most recently, Diane researched teacher retention and helped administer CRDG as the assistant to the director.

Kelsey, Deborah Mary K.
Performing Arts
BEd 1983, Hawai'i

Kerr, Rachel
Elementary

Kido, Lillian
Pihana Nā Mamo
BA 1971, Hawai'i

King, Arthur
Administration
BA 1946, Washington; MA 1950, EdD 1955, Stanford

Kleinjans, David
Science
BA 1972, Hawai'i

Krause, Loretta
Administration
BA 1960, Minnesota; MA 1961 Nebraska; EdD 1969, South Dakota

Krohn-Ching, Waldtraut L.
Art
BS 1968, MA 1969, Eastern Michigan; MFA 1974, Hawai'i

Kuroda, Kathleen
Performing Arts
BFA 1971, MFA 1983, Hawai'i

Lai, Morris K.
Evaluation
BS 1965, Stanford; MA 1967, Hawai'i; PhD 1972, UC Berkeley

Lawton, Brian
Evaluation
BA 2001, Nevada

Levinson, Richard
Learning Technology
B.S. 1984, Tulane

Lush, Noren
Social Studies
BEd 1974, Franklin College; MA 1988, Hawai'i

Mackay, Irene
Mathematics
BSc 1973, MSc 1988, Strathclyde (Glasglow, UK)

Maedo, Audrey
ELS Administration
AS 1970, KCC Hawai'i

Marino, Tara
Elementary
BA 2001, Washington State at Pullman

Menton, Linda K.
Social Studies
BA 1968, Chaminade; MLS 1972, MA 1978, PhD 1982, Hawai'i

Miller, Matthew
Art
BFA 1984, Hawai'i; MFA 1991, Oregon

Murchison, Sally
Art
BFA 1955, UCLA; MFA 1966, Hawai'i

Narimasu, Bert
Marketing and Publication Services
BA 1976, MFA 1993, Hawai'i

Ng, Joranna
Marketing and Publication Services
BBBA 1995, Royal Melbourne Institute of Technology; MBA 2000, HPU

Nguyen, Thanh Truc T.
Learning Technology
BA 1996, MEd. 2000, Hawai'i

Nohara, Sheryl
Administration
BA 1977, MEd 1997, Hawai'i

Oda, Yukari
Foreign Language
BA 1985, Junshin Women's College; BA 1997, Bryn Mawr; BA 1998, HPU

Okazaki, Claire
Mathematics
BA 1970, Washington State at Pullman; MEd 2004, Hawai'i

Olafsson, Kevin
Performing Arts
BM 1986, British Columbia

Pottenger, Francis M.
Science
BS 1951, Otterbein; MEd 1957, Xavier; MS 1964, New Mexico Highlands; PhD 1969, Claremont Graduate School

Pottenger, Larma
Editorial
BA 1950, Otterbein

Quintan, Walter
Athletics

Ragonton, Jonalyn
Administration
BBA 2003, Hawai'i

Ramos, Rosemarie
Clerical
AS 1976, St. Ferdinand

Personnel

Rivera, Grant
Cafeteria
Saka, Susan
Evaluation
BS 1980, MEd 1994, Hawai'i
Sakihara, Jean
Foreign Language
BA 1958 Jissen Women's University
Scott, Neil
Learning Technologies
BE 1970, Canterbury University, New Zealand
Shea, Carolyn
School Success
BEd 1997, MEd 2004, Hawai'i
Shimabukuro, Erin
Administration
BEd 2003, Hawai'i
Shimabukuro, Sandra
Science
BS 1970, Hawai'i; MPH 1973, Michigan
Shiroma, Michael
Technology
AS 2002, HCC Hawai'i
Shishido, Wayne
Marketing and Publication Services
BFA 1972, Hawai'i
Sjostrom, Mary Pat
Mathematics
BS 1972 Wright State; MA 1981, South Florida; PhD 2000, Georgia State
Slovin, Hannah
Mathematics
BA 1966, Pennsylvania; MEd 1970, Temple; EdD 1996, Hawai'i
Southworth, John H.
Science
BA 1961, Pomona; MA 1971, Hawai'i
Speitel, Thomas W.
Learning Technology
BS 1967, Manhattan College; PhD 1975, Hawai'i
Smith, G.G.
Athletics
BA 1999, Georgia; MA 2002, Kentucky
Smyslova, Olga
Learning Technology
PhD Moscow State University, Russia
Soetoro, Maya
Social Studies
BA 1994, Hawai'i; MA 1996, NYU

Gayle Hamasaki began her CRDG career as a university student helping with manuscript preparation for the Hawaii English Program (HEP) from 1977 until 1981. She returned to CRDG in 1982 to work on the HEP Secondary Project and over the years became an integral part of the media production team. On behalf of CRDG, Gayle worked closely with the Research Corporation of the University of Hawaii (RCUH), handling the intricacies of the CRDG revolving accounts and assisting the director with financial record keeping, analysis, and planning. Still part of the media production team, Gayle helped manage the Education Publication Center as it grew to become the Marketing and Publication Services (MaPS). In recent years Gayle's administrative skills were applied to the CRDG Summer Programs, which she co-directed. After more than twenty-five years as an integral part of CRDG, Gayle has accepted a position with RCUH and embarked on a new chapter in her career.

Sosso, Paul
Learning Technology
BS 1988, Nebraska
Tamashiro, Joan
Mathematics
MA 2000, Hawai'i
Tassill, Kekoa
Social Studies
BA 2002, Northern Colorado
Tau, Leah
Social Studies
BA 2001, Hawai'i
Taum, Alice
Evaluation
BA 1997, Chaminade
Teixeira, Tracy Lee
ELS Administration
BSW 1981, MSW 1983, Hawai'i
Teter, William C.
English
BA 1976, San Francisco; MA 1983, Hawai'i
Tomei, Ivan
Marketing and Publication Services
Torigoe, Wendy
Mathematics
BA 2001, Northwestern; MEd 2003, National Louis University
Towata, Carolyn S.
BEd 1967, 5-Yr Diploma 1968, MEd 1968, Hawai'i
True, James
Learning Technology
BA 1995, Tennessee at Chattanooga
Venenciano, Linda
Mathematics
BA 1993, MAT 1994, Pacific U
Verbaken, Joop
Learning Technologies
HIO 1976, Eindhoven-The Netherlands
Ward, Lori
Editorial
BA 1983, Hawai'i; MNM 2002, Regis
Watson, Joshua
College & Career Counselor
BA 1996, Northern Iowa; MA 1999, Colorado
Witt, Diane S. McCoy
Music
BM 1972, Indiana; MEd 1981, Hawai'i
Wong, Ira
Performing Arts
BA 1988, Hawai'i
Yap, Mark
Pihana Nā Mamo
BA 2001, Hawai'i
York, Susan
Evaluation
BA 1992, MA 1994, MEd 2001, Hawai'i
Yoshioka, Darren
Athletics
BS 1993, Fresno State; MS 2004, Hawai'i
Young, Donald B., Jr.
Administration
BS 1968, MS 1969, SUNY; EdD 1986, Hawai'i
Young, Stephen
Cafeteria
Zenigami, Fay
Mathematics
BEd 1974, PD 1975, MEd 1975, Hawai'i
Zorn, Chris
Performing Arts
BEd 1983, Hawai'i

Collaborations

Universities
Ball State University
Bucknell University
Carnegie Mellon University
George Washington University
Georgia State University
Illinois State University
Indiana University of Pennsylvania
Miami University of Ohio
Mississippi State University
Ohio State University
Purdue University
Shippensburg State University
Sonoma State University
Stanford University
University of Arizona
University of California–Davis
University of Illinois
University of Maine
Western Illinois University

Schools
Connections Public Charter School, Hawai'i
Department of Education Schools, Hawai'i
Kamehameha Schools, Hawai'i

Educational Research/Service Agencies
ARTS First Partners, Hawai'i
Center for Conservation Research and Training, University of Hawai'i
College of Tropical Agriculture and Human Resources, University of Hawai'i
Ecology, Evolution & Conservation Biology, University of Hawai'i at Mānoa
Education Development Center, Massachusetts
Eisenhower National Clearinghouse for Mathematics and Science, Ohio
Hawaii Alliance for Arts Education, Hawai'i
Institute for Native Pacific Education and Culture, Hawai'i
Pacific Circle Consortium
Pacific Regional Mathematics and Science Consortium, Hawai'i
Pacific Resources for Education and Learning, Hawai'i
Research Corporation of the University of Hawai'i, Hawai'i
University of Hawai'i Foundation
WestEd, California

International Partners
Japan
Keo University
Nishinippon High School
Sohseikan High and Middle School
University of Tokyo

Korea
Korea Educational Development Institute
Korea Institute of Curriculum of Education
Korea National University of Education

Pacific Islands Departments of Education
American Samoa
Federated States of Micronesia (Chuuk, Kosrae, Pohnpei, Yap)
Commonwealth of the Northern Mariana Islands
Guam
Republic of Palau
Republic of the Marshall Islands

Russia
Academy of Sciences, Scientific Council for Cybernetics
Russian Ministry of Education
Institute of Developmental Psychology and Pedagogy
Krasnoyarsk State University
Krasnoyarsk Department of Education

Singapore
Ngee Ann Polytechnic Institute

Slovakia
Comenius University, Bratislava

CRDG our roots

1895 A teacher training department is formed at Honolulu High School, located in Princess Ruth's former mansion (now Central Intermediate School).

1896 The teacher training department moves to Victoria and Young Streets and is renamed Honolulu Normal and Training School.

1905 After annexation, Hawai'i becomes a U.S. territory. Honolulu Normal and Training School is renamed Territorial Normal and Training School, and moves to Lunalilo and Quarry streets.

1921 Benjamin Wist becomes the principal of the school.

1930 The school moves to a new 15-acre site (once a pig farm) adjoining the University of Hawai'i at Mānoa. The university's Department of Secondary Education becomes the School of Education.

1931 The legislature transfers the Territorial Normal and Training School to the School of Education. The School of Education is renamed Teachers College.

1939–41 An elementary school (University Elementary School) is built on Metcalf Street as part of Teachers College. Construction begins on Castle Memorial Hall, a training center for kindergarten and nursery school teachers.

1941–1945 Punahou School, displaced by the military occupying its campus, moves into Castle Memorial Hall and other buildings, but Teachers College continues to operate.

1943 University High School Building 1 on the Metcalf Street side of Teachers College is completed.

1948 University High School Building 2 is constructed adjacent to Building 1. The University Laboratory School (ULS) now offers a complete K–12 curriculum. Hubert Everly (later dean of the College of Education) becomes the principal.

1959 Teachers College becomes the College of Education, and Hawai'i becomes the fiftieth state.

1966 ULS becomes part of a new entity: the Hawaii Curriculum Center. This is a joint operation of the Hawai'i Department of Education and the University of Hawai'i to develop curriculum programs and materials for schools.

1969 The Hawaii Curriculum Center is phased out and ULS comes under a new College of Education unit known as the Curriculum Research & Development Group (CRDG).

1996 CRDG, along with other research units, reorganizes under the UH Office of the Senior Vice President for Research.

2000 CRDG merges with the College of Education. ULS applies for charter school status.

2001 ULS becomes a charter school and is renamed the Education Laboratory: A Hawai'i New Century Public Charter School. CRDG continues to operate the school as a laboratory for curriculum R & D.

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College of Education
Curriculum Research & Development Group
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