

**21<sup>ST</sup> CENTURY COMMUNITY LEARNING CENTER**

**CONNECTING MOLOKAI M'S: "ME, MY MIND, MY  
MANA'O"**

**(CMM)**

**MOLOKAI COMPLEX OF SCHOOLS**

**2011-12**

Evaluator

Mildred S. Higashi, Ph.D.

October, 2012

## EXECUTIVE SUMMARY

The 21<sup>st</sup> Century Community Learning Center Project, Connecting Molokai M's: "Me, My Mind, My Mana`o" (CMM) is a five-year project which embeds research-based effective features in after-school or school-community settings. The activities are organized into four components: Selfhood and Learning, Skills Maintenance, STEM Mind-Building and Strength-Based Community Building.

The evaluation design includes formative and summative assessment of project objectives for program improvement and for determining effectiveness of the project. There were two objectives for each component, one for participation and one for completion of activities.

Conclusions and recommendations from the report are listed below.

### Conclusions

1. Two and a half of the 4 project participation objectives and two of the 4 completion objectives were met. 2.
2. Project management has improved, but more can be done in program planning, implementation and data collection.
3. All 6 sites implemented the program, but only Kaunakakai School offered all four components with 29 courses. Kilohana School, Molokai Middle School and Molokai High school implemented 3 components with 11, 7, and 6 courses respectively. Kualapuu and Maunaloa Schools implemented 2 components with 3 courses each.
4. Most evaluation forms returned by students, parents, teachers and community members were generally positive. Some courses had no or low return rates. Some courses had student assessments which were not in agreement with teacher ratings.
5. The number of classroom teachers rating the effect of the project on regular project attendees (attended 30 days or more) was 25 teachers for 319 students: 14 teachers at Kaunakakai School for 150 students, 7 teachers at Kilohana School for 40 students, one teacher at each of the other schools for 8 students (Kualapuu), 27 students (Maunaloa School), 84 students (Molokai Middle) and 10 students (Molokai High). At all schools students who needed to improve made slight to significant improvements.
6. Three sites had enrichment programs during the summer. Kaunakakai School offered language arts, math, wellness and leadership, space camp, violin, art and drama. Kilohana School offered Keiki Steps to Kindergarten, horticulture, arts and crafts, drawing and painting, kempo and violin. Maunaloa School offered math, reading, cooking, and hula.

### Recommendations

1. Revise course offerings and components in view of reduced funding for Year 5.
2. Review project proposal and evaluation reports and improve project implementation accordingly.
3. Ensure timeliness of data collection and completion of required forms.

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**CONNECTING MOLOKAI M'S: "ME, MY MIND, MY MANA`O"  
(CMM)  
EVALUATION  
YEAR 4, 2011-12**

**BACKGROUND**

Connecting Molokai M's: "Me, My Mind, My Mana`o" was funded through the 21<sup>st</sup> Century Community Learning Center Program for five (5) years, 2008-13. Funding of \$377,911 was approved for the first, second and third years. Fourth year funding, expected to be 75% of first year funding, was \$283,433. Carryover funds from the third year amounted to \$260,203 for a total of \$543,636 available for the fourth year. Carryover funds of \$12,294 added to the Year 5 funding of \$188,956 totals \$201,250 available for the fifth and final year of the project.

The project year is from June 1 to May 31. However, to coincide with the school calendar, activities are reported for the school year and the summer session preceding it. The summer program was held at three elementary schools - Kaunakakai, Kilohana and Maunaloa Schools.

School-year activities for Year 4 were conducted at all Molokai schools - Molokai (MKK) High School, [Molokai](#) (MKK) Middle School, and all the feeder elementary schools: Kaunakakai, Kilohana, Kualapuu, and Maunaloa Elementary Schools. Evaluation was based on data on the statewide standards, General Learner Objectives (Appendix A), project objectives (Appendix B) and implementation of project plans and activities. Evaluation forms (Appendix C), developed for feedback from students, parents, and teachers, were used. Acronyms used in the report are defined in Appendix D.

**COMMUNITY PARTNERS**

- |  |  |
|--|--|
| 1. Air Force Research Laboratory                 | Career opportunities in STEM           |
| 2. Catholic Food Ministries                      | Snacks                                 |
| 3. First Lego League                             | Teacher training, robotics competition |
| 4. Goodfellows, Incorporated                     | Greenhouse cement                      |
| 5. Hawaii Department of Transportation           | Bus transportation                     |
| 6. Kulana Oiwī                                   | Staffing, snacks                       |
| 7. Maui Art League, Lahaina Arts Association     | Art class supplies                     |
| 8. Maui Coast Hotel                              | Housing for FLL team                   |
| 9. Maui Economic Development Board               | \$5K STEM grant                        |
| 10. Maui Economic Opportunity                    | Bus transportation                     |
| 11. Maui Police Department, Molokai Division     | Staffing for leadership class          |
| 12. Molokai Drugs                                | Robotics and business education        |
| 13. Rose Yamada                                  | Development/consultation services      |
| 14. Summer PALS                                  | Summer program at Maunaloa School      |
| 15. TREX Enterprises Corporation                 | Career opportunities in STEM           |
| 16. University of Hawaii, ACE Reading            | Instructional support                  |
| 17. University of Hawaii, Engineering Department | Robotics advisory and career           |
| opportunities in STEM                            |  |

18. University of Hawaii, Extension Service	Horticulture and Science Inquiry
19. University of Hawaii, Maui College	Career opportunities in STEM
20. University of Hawaii, Maui Community College	Speakers, student mentors

## DESCRIPTION

Connecting Molokai M's: "Me, My Mind, My Mana`o" (CMM) has four components designed to meet the educational needs of the students through research-based after-school or school-community activities. The four components of this project are: 1) Selfhood and Learning, 2) Skills Maintenance, 3) STEM Mind-Building, and 4) Strength-Based Community Building. Together they represent a balanced program of activities that research has found to be necessary in community or after-school settings. Descriptions of the four components follow:

1. **Selfhood and Learning.** This component focuses on technology and computer skills, personal development, and sewing and design basics to strengthen self-sustenance. Its goal is to restore and/or strengthen respect, esteem, and aspirations as the foundation for successful learning and transition into higher education and career-changes. The target is secondary students, young adults, unemployed parents, and other community members.
2. **Skills Maintenance.** This component complements the regular school program by supplementing essential skills development with tutoring, computer-assisted interactions for math and reading, and authentic experiences in science inquiry through the study of the environment. It focuses on the essential skills emphasized by the Hawaii DOE (DOE). Its goal is to maintain and connect essential skills in accordance with prescriptions by teachers and/or computer-assisted and other programs for elementary and secondary students.
3. **STEM Mind-Building.** This component focuses on the development of higher-level thinking skills emphasizing concepts and skills relating to the areas of science, technology, engineering, and mathematics. Its goal is to explore and apply complex and critical-thinking skills within the context of robotics and CAD. This component targets elementary and secondary students from grades 3 through 12. Age-appropriate groups are used and learning is built into collaborative teamwork. Teachers are also targeted to stimulate and enhance the use of technology in the classroom.
4. **Strength-Based Community Building.** This component is designed to capture the beauty and history integral to the diverse cultures represented on the island. In the development of the local ethnic awareness, concepts of diversity, commonality, and change are shared. The goal is to use the affective and cultural strengths in the diverse ethnicities of Molokai to bring people and energies together toward a sound future based on education. This component targets children, young adults, and community members. Activities are areas of interest and pride among community members.

## YEAR 4 ACTIVITIES BY COMPONENTS

Year 4 activities are discussed below according to the academic year program and then followed by the preceding summer program. The academic year program was conducted at all six schools as shown in the table below. MKK is used as a code for Molokai. The summer program consisted of classes at Kaunakakai, Kilohana and Maunaloa Elementary Schools.

## ACADEMIC YEAR PROGRAM

### COMPONENT COURSES BY SCHOOLS

COURSE	KAUNAKAKAI	KILOHANA	KUALAPUU	MAUNALOA	MKK MIDDLE	MKK HIGH
<b>Selfhood and Learning</b>						
Computer Lab for Adults	X					
C2 Ready						X
Fashion First						Sem 2
Hana Hou Tuesday						X
Machine Patch Quilting	X					
Olelo Hawaii		Sem 2				
<b>Skills Maintenance</b>						
ACE Reading	X					
Academic Support		Sem 1			X	
Achieve 3000	X					
Skills Support (Math Whizz & Achieve 3000)				X	X	
Tutor Support				X		
Tutorsaurus		Sem 1				
Homework Help K	X					
Homework Help 1	X					
Homework Help 2	X					
Homework Help 3	X					
Homework Help 4	X					
Homework Help 5	X					
Homework Help 6	X					
Horticulture		X				
Math Team					X	
Math Whizz	X					
Media & Technology		Sem 1				
Science Inquiry	X					
Tutoring		X				
Yearbook					X	
<b>STEM MIND-BUILDING</b>						

Advanced Robotics	Sem 2					
Beginning Robotics	Sem 2					
Bridges					X	
CAD	X					
FLL Robotics	Sem 1		Sem 1			
Jr Robotics	Sem 2					
Vex Robotics						Sem 1
<b>Strength-Based Community Building</b>						
Art	Sem 1					
Ceramics			X			Sem 2
Chess					Sem 1	Sem 1
Dance Fitness	Sem 1					
Dancercise		Sem 2				
Drawing & Painting		Sem 1				
Instrumental Music						
Brass	X					
Violin	X	X	X			
Woodwind	X					
Kempo		Sem 1				
Open Computer Lab				X		
School of Rock Elem A	Sem 1					
School of Rock Elem B	X					
School of Rock MMS	X					
School of Rock MHS	X					
Silk Screen		Sem 2				
Tahitian Beginner	X					
Tahitian Advanced	X					
Ukulele					Sem 2	

The courses are described below according to components.

### **Selfhood and Learning**

Selfhood and Learning courses were offered at three of the six sites. Computer Lab for Adults and Machine Patch Quilting were offered at Kaunakakai School, Olelo Hawaii at Kilohana School and C2 Ready, Fashion First and Hana Hou Tuesday at Molokai High School. Fashion First and Olelo Hawaii were introduced during the second semester and the others were repeated each semester.

The Kaunakakai **Computer Lab for Adults** was designed to accommodate adults with little or no computer skills or for those who wanted to refresh their computer skills. The class was offered on Tuesdays and Thursdays from 4-6 pm August 16 - December 13, 2011 and January 5



- May 17, 2012. Sixteen (16) adults registered for the Semester 1 class and 12 for the Semester 2 class, but completion was 8 and 6 students respectively. The objectives of the class were to produce documents, presentations and spreadsheets.

The class started its first 10 weeks learning Microsoft Word and creating documents. The second 10 weeks were spent learning Excel and creating spreadsheets. The final weeks were spent learning PowerPoint and creating presentations. Through step-by-step instruction along with video lessons, the hands-on class was designed for any skill level student to understand. The class was taught at a pace that allowed students to absorb and practice the new skills they learned. Hand-outs were given to the students for use as a reference even after the class ended.

The computer lab was also open to the community for general use on Tuesdays, Wednesdays, and Thursdays from 4-8 pm. This allowed community members without access to computers to practice keyboarding skills, work on projects, or just surf the web. Due to cost restraints, free printing was not allowed.

Molokai High School's **C2 Ready!** prepared students to be college or career ready by the time they graduate from high school. It was held once a week for 6 hours from 2-8 pm from August 9 - December 6, 2011 (14 students, 5 completers) and for 3 hours from 2-5 pm from January 5 - April 23, 2012 (8 students, 6 completers). First semester focused on completing resumes and personal statements, tips on taking standardized tests and discussions about "life after high school" using Grant Baldwin's curriculum. Students researched colleges of interest - tuition, fees and admission requirements. They also explored different aspects of living on one's own and prepared a budget using the salary of their chosen career. Adding a "living on your own" simulation is planned for Year 5.

Second semester included SAT, PSAT, PLAN or SAT preparation using ePrep, scholarship research, collegiate athletic information, and FAFSA workshops. Students wrote their repertoire of employable skills and participated in college and career fairs on campus. Once volleyball, baseball and tennis started, there was a decline in attendance so the class was terminated in April.

Community partnerships included UH/MCC speakers, college recruiters, college student mentors, and business consultants. Plans are to include planning strategies and time management for Year 5.

**Fashion First** was a combination of a student-run silk screen print shop and an aloha wear design center for Molokai High School (MHS) students and their families. The print shop and design center was planned to be the main source of all MHS logo merchandise instead of outsourcing. The school felt that it was imperative that money generated from sales be circulated within this economically fragile community. The class was offered twice a week from 2-5 pm from January 13 - April 4, 2012 to five (5) students and one adult (3 students and no adult completers). The mission was to increase the entrepreneurial skills and self esteem of participants for developing a sustainable business by teaching them how to produce and market high quality home furnishings and apparel. The three objectives for Fashion First were to:

1. build business partnerships and network with the local community.
2. complete at least one item which includes sewing and silk screening to be highlighted at the finale.

3. learn basic business practices while engaging in the development and production of a product.

In sewing, the first component, students learned to sew a range of items from clothing to home furnishings. One student made three bathing suits and wants to pursue a career in bathing suit design. Other beginning students learned to sew tote bags by using a pattern. Once the students mastered using patterns, they began designing their own clothes. The sewing component was hampered by lack of functional equipment since only one of the sewing machines purchased in a prior 21<sup>st</sup> Century grant was in working order.

The second component was the silk screen print shop where students learned the process and techniques of silk screening so they could turn their graphic designs into wearable art or other saleable merchandise. The students used a trial version of Corel, a graphics design program, and Illustrator, a beginning program, to begin a club t-shirt design. The class began the semester with a silk screening instructional session that attracted around twenty attendees, including teachers, students, and community members. Anthony Sarmiento, of One Shot Supplies in Oahu, flew to Molokai to teach the silk screening process, which the attendees can teach to others.

Basic business principles was the last component. In order to be self sustaining, participants needed to know basic business practices which included marketing and basic bookkeeping. Learning how to start your own business was also taught. The Fashion First students produced one screen for a Molokai-based company and printed shirts for the Green and White Carnival staff and contestants. Another business began designing its logo and wanted Fashion First to print them. Next year students are hoping to print the Molokai High School uniforms.

The finale was the grand opening of MHS Logo Wear and a fashion show where all the “designers” and “manufacturers” got to feature their work on the runway. Participants, student artists as well as community partners who made this project possible were recognized.

The Molokai High School Library hosted **Hana Hou Tuesday** every Tuesday from 2-8 pm from August 9, 2011 - December 13, 2011 and January 10 - May 17, 2012. Due to overwhelming response (every seat was taken), Hana Hou Thursday was added from February 2 - May 22, 2012.

Hana Hou Tuesday and Thursday had three main objectives: 1) Struggling high school students will use engaging, high interest leveled reading resources and will share their experiences (multimedia booktalks) using social networking technology, high interest leveled books, Playaways (digital audio books), TumbleBooks/Capstone/Rouke (electronic books), and Flip Video cameras (multimedia tools); 2) Families will support their students and themselves by using web-based and library resources such as Engrade (online schoolwide grading system), online databases: Discovery Education, EBSCO, World Book, Encyclopedia Britannica, TumbleBooks/Capstone/Rouke, Accelerated Reader, and current magazines; and 3) All learners will participate in “Monthly Library Highlights” focused on school-wide projects (i.e. Science Fair, National History Day, Senior Project) and literacy activities (i.e. poetry, digital storytelling).

A certified librarian provided assistance and library services to all members of Molokai's high school community (students and their families). This expanded school library services to the community after normal school hours and as an alternate to the one State Public Library night. Students benefited from individualized assistance to complete school-wide projects and families accessed internet resources to support their child's learning. They learned to check their child's grades on Engrade, a MHS computer program. Families with internet access at home were able to share databases and electronic books with a wider audience through purchased computer-based literature. All learners were able to share their knowledge with others by learning and using social networking technologies with portable iPads. Flip video camera instruction was provided so that they had access to multimedia sharing and documentation evidence. Scholarship and college application workshops were provided in various formats and with different presenters. A partnership with Maui College, Molokai provided college prep and scholarship sessions.

The Kaunakakai School **Machine Patch Quilting** class met for 8 hours on 8 Saturdays from August 6 to December 2, 2011 and January 14 to April 21, 2012. There were 17 adults (16 completers) for Semester 1 and 11 adults (10 completers) for Semester 2. The skills taught included 4-patch square, basic design, 9-patch square, borders, backing and binding, "Stitch in the Ditch" technique, patchwork with fusible appliqué, triangles, basic stars and combining patterns. A quilting loom purchased the previous year allowed the students to expand their quilting skills. Much time was spent learning how to use the loom arm of the quilting machine. They learned how to use the machine to piece top batting and to secure the bottom. Many of the adults were continuing their work from the previous year. In addition to working on each skill, students engaged in discussions on the marketing potential of quilts and quilt craft products. Most of the students, however, preferred to use their skills to donate quilts. Seven quilts were donated to a Molokai family who lost everything because of a house fire. The family had seven children, so the students made quilts for each child.

The quilting class also formed a quilting guild and joined the National Quilting Association, which would help to continue classes and sustain the quilters after the 21<sup>st</sup> Century grant funding ends. Through the guild, the class did fundraising, received donations, and received a grant to buy a long arm quilting machine. David Mikami, a local merchant, allows the guild to house the machine in his new general store in Kaunakakai town.

**Olelo Hawaii** was a class for adults to learn Hawaiian language, values and culture. Three objectives for Olelo (speak) Hawaii were to: 1) learn everyday functional 'Olelo Hawai'i language, 2) learn the basic Protocol (traditional values, behavioral expectations/lawena (expectations), and oli aloha (name of a song), oli kahea (opening chants), and oli kom (chant that calls in the opening chanters), and 3) do place-based Mo'olelo (story) and Hula. All lessons were derived from the lessons and vocabulary offered in Na kai 'Ewalu and Ka Lei Ha'aeo books.

As a beginning class the students learned proper Hawaiian pronunciation and practiced exercising specific sentence structures such as greetings, command sentences, verb sentences, and past, present and future tenses. Protocols were embedded throughout the class as the

foundation of classroom management and expectations. Traditional values such as Ho'ihi (Respect), Malama (take care of), Kuleana (Responsibility), and Aloha (love, caring) were expected at all times and the terms were regularly used. 'Olelo no'eau (a saying or quote) was introduced at the beginning of every class and discussed briefly to ensure understanding and continue this 'ike or knowledge of our kupuna. When students arrived they practiced oli kahea to enter and oli komo allowed them permission to come in. The oli (chant) used is the oli that they will be able to use throughout their life when protocol is expected. They also learned an oli aloha and mahalo to show hospitality at the beginning of any event and to give thanks at the end. These four types of oli are always essential in Hawaiian culture. As a way to end the class, students enjoyed mo'olelo of Molokai and learned one hula - meaning and performance. The students performed their oli aloha to welcome everyone at the end of the semester Ho`iki. Every student wrote a short mele (poem) using the simple sentence structures they learned and recited them. They performed their hula and closed their ho'ike with an oli mahalo.

### Skills Maintenance

This component was comprised of ACE Reading, Academic Support, Achieve 3000, Homework Help, Horticulture, Math Team, Math Whizz, Media and Technology, Science Inquiry, Tutor and Skills Support, Tutoring, Tutorsauras, and Yearbook. The start and end dates, days and time of week, number of days per week, number of hours per week, number of weeks, number of students (adults denoted by A) are shown below by schools for Semesters 1 and 2 (top and bottom lines respectively). Some courses were offered for one semester only.

Activity	Start Date	End Date	Days Of Week And Times	Days Per Week	Hours Per Week	# Weeks	Students
<b>SKILLS MAINTENANCE</b>							
<b>KAUNAKAKAI SCHOOL</b>							
ACE Reading	10/11	12/8	M-Th	4	6	9	12
	1/30	5/17	2:00 - 3:30	4	6	14	10
Achieve 3000	10/18	12/13	M,T,Th	3	3	8	19
	1/5	5/10	2:00 - 3:00	3	3	17	18
Homework Help K	8/1	12/13	M,T,Th	3	3	19	22
	1/5	5/17	2:00 - 3:00	3	3	18	20
Homework Help 1	8/1	12/13	M,T,Th	3	3	19	23
	1/5	5/17	2:00 - 3:00	3	3	18	24
Homework Help 2	8/1	12/13	M,T,Th	3	3	17	21
	1/5	5/17	2:00 - 3:00	3	3	18	18
Homework Help 3	8/1	12/13	M,T,Th	3	3	19	19
	1/5	5/17	2:00 - 3:00	3	3	18	16
Homework Help 4	8/1	12/13	M,T,Th	3	3	17	22
	1/5	5/17	2:00 - 3:00	3	3	18	14

Homework Help 5	8/1 1/5	12/13 5/17	M,T,Th 2:00 - 3:00	3 3	3 3	19 18	20 13
Homework Help 6	8/1 1/5	12/13 5/17	M,T,Th 2:00 - 3:00	3 3	3 3	17 18	21 12
Math Whiz Lower	8/1 1/5	12/13 5/17	M,T,Th 3:00 - 4:00	3 3	3 3	19 18	42 23
Math Whiz Upper	8/8 1/5	12/13 5/12	M,T,Th 3:00 - 4:00	3 3	3 3	18 18	17 11
Science Inquiry	8/24 1/6	11/30 5/9	M,F 2:00 - 3:00	2 2	2 2	14 15	32 31
<b>KILOHANA SCHOOL</b>							
Academic Support	8/22	12/2	M,T,Th,F 4:00 - 5:00	4	4	13	12
Horticulture	8/22 1/24	12/8 5/17	T,Th 3:00-5:00	2 2	4 4	14 16	19 16
Media & Technology	8/22	11/28	M 3:00-4:00	1	1	12	4
Tutoring K	8/22 1/24	12/9 5/15	M,T,Th,F 2:00 - 3:00	4 4	4 4	14 11	7 3
Tutoring 1	8/22 1/23	12/9 5/18	M,T,Th,F 2:00 - 3:00	4 4	4 4	14 12	4 4
Tutoring 2-3	8/22 1/23	12/9 5/18	M,T,Th,F 2:00 - 3:00	4 4	4 4	14 12	15 6/7
Tutoring 4-5	8/22 1/23	12/9 5/18	M,T,Th,F 2:00 - 3:00	4 4	4 4	14 13	17 5/7
Tutoring 6	8/22 1/23	12/5 5/8	M,T,Th,F 2:00 - 3:00	4 4	4 4	14 13	11 6
Tutorsaurus	8/22	12/1	M,T,Th,F 2:00 - 3:00	4	4	13	11
<b>MAUNALOHA SCHOOL</b>							
Tutor/Skills Support 3-4	8/15 1/4	12/14 5/17	M -Th 2:00 - 4:00	4 4	8 8	17 18	16 16
Tutor/Skills Support 5-6	8/15 1/4	12/14 5/17	M - Th 3:00 - 5:00	4 4	4 8	17 18	17 16
Tutor/Skills Support K-2	3/27	5/16	M - Th 2:00 - 4:00	4	8	7	28
<b>MOLOKAI MIDDLE SCHOOL</b>							
Academic/Skills Support 7	8/17 1/4	12/15 5/18	M,T,W,Th,F 2:00 - 5:00	5 5	15 15	17 19	70 52
Academic/Skills	10/10	12/15	M,T,W,Th,F	5	15	9	28

Support 8	1/4	5/17	2:00 - 5:00	5	15	19	30
Math Team	8/24	12/14	W	1	1	16	8
	1/11	5/15	2:00 - 3:00	1	1	6	7
Yearbook	8/22	9/19	M, W 2:00 - 3:30	2	3	4	7
	2/7	5/18	T, Th 3:30 - 5:00	2	3	14	8

The **ACE Reading** program at Kaunakakai School taught critical beginning and developing reading skills in a structured manner. It provided students with opportunities to practice critical skills in a positive, supportive environment. ACE Reading tutors were trained to follow a structured protocol and to use frequent verbal praise. They were encouraged to develop positive, caring, supportive relationships with their students.

At each ACE Reading session, students 1) practice reading fluency skills; 2) learn new sounds or words; and 3) respond to comprehension questions about a story. Typically, the tutoring sessions are provided for 30 minutes daily over 8-12 weeks. Tutors follow a structured protocol to preserve the integrity of the intervention. Student activities (“sessions”) are individualized and proceed at the student’s pace. There are before and after program assessments, and weekly reading fluency and comprehension probes, which take about 5 minutes to administer. The sequence of a tutoring session is illustrated in Table 1.

Table 1. *ACE Reading Tutoring Strategies*

Strategy	Procedure	Purpose
Repeated Reading	Unison, Echo, Independent	Build fluency skills (double rate in 8 weeks)
Praise	Specific verbal praise	Build self-confidence/rapport
Memory Game	8 pairs of words on index cards	Learn sounds, sight words, vocabulary at a rate of 2 new words per day
Story Map	Cognitive organizer/self-monitoring and questioning strategy. Includes predictions, story grammar, sequencing & story retells, how and why questions.	Develop/answer comprehension questions to criteria (develop critical thinking skills)
Audio/Video Self Modeling (Feedforward)	Edit out all errors to create perfect model (2 minutes max)	Show targeted performance, future success

Video self modeling is at the heart of ACE Reading. A 2-minute “feedforward” video of the student sounding out words, reading fluently, and answering comprehension questions is made by the video technician and viewed by the student before the tutoring session. A digital camera and computer editing made the construction of the self-modeling videos economical and time efficient. This intervention has been found to accelerate improvement in most students.

Kilohana and Molokai Middle School (MMS) **Academic Support** was to help students receive extra support time with homework, long-range class assignments and projects such as Science Fair and research papers required in the core content areas. It was created for the many students who have no adult available after school to ask questions when they need help, nor do they have an appropriate place at home to do homework. Many students do their homework “on the fly” between school and ball practice with little opportunity to reflect and focus. The class gives students the opportunity to work in a safe, quiet place that is conducive for learning with a teacher (and paraprofessionals at MMS) present to monitor them as they work on assignments. It has the added bonus of being on campus where the computer lab is available and classroom teachers can be reached if clarification of the homework assignment or project is needed and to provide feedback to teachers when appropriate. Periodic checks between the classroom and Academic Support are made and the students receive the instructional follow-up needed.

MMS Academic Support was offered to seventh and eighth graders five days a week from 2:00-3:30 pm. The purpose of the class was to help middle school students receive extra support time with homework, long-range class assignments and projects such as Science Fair and research papers. Instructors helped the students with time management, finding resources, and helped the students learn to communicate regularly with their classroom teachers in order to clarify the parameters of the long-range assignments. This classroom connection is paramount in supporting MMS students since working on long-range assignments outside of school is a new endeavor for them. The goal is to help the students become successful independent learners capable of following through with assignments and reaching task completion in a timely manner. At MMS a partnership with Uplinks helped give students a balanced program that included a Core Concept component that taught character and leadership skills, and provided activity classes and snacks (not available through the project). Motivation is a critical component in student learning and this partnership helped students stay motivated to learn. The Uplinks program offered special events throughout the school year. Leadership Day, Movie Night sleepovers, Volleyball Tournaments and other events served as a “draw” to encourage students to participate in after-school programs. Students were helped to organize their work, write the required text, and use the internet to research their topics. Points could be earned toward qualifying for special events by participating in the after-school program. Parent contact is an ongoing part of the Uplinks Program which was a valuable part of the support for students in the Academic Support class.

Another aspect of the MMS Academic Support class was targeted instruction for non-proficient students identified by the HSA scores, school-wide monthly benchmark assessments, and teacher recommendations. Once identified, students in need of interventions were recommended for after-school support. Content aligned with the Hawaii Content and Performance Standards (HCPS III) and Hawaii Common Core Standards in language arts, math, and science. Most students needing interventions utilized the Math Whizz program for math and the Achieve 3000

program for reading. Cognitive Tutor was used for advanced math students during second semester.

The Kaunakakai School **Achieve 3000** class was created to support targeted students in reading achievement. The Hawaii DOE purchased licenses for all students for school year 2011-2012. Although available throughout the school day, many teachers do not dedicate the amount of class time needed for the program. Students are recommended to complete two 45-minute lessons per week in order to make the gains suggested by the research. Providing time after school helps support the state's efforts in implementing the program.

Achieve 3000 provides web-based, individualized learning scientifically proven to accelerate reading comprehension, vocabulary, writing proficiency and performance on high stakes tests for grades 2-12. Once a student takes the placement test, all reading material is sent to the student via the Achieve 3000 website. Each day one high interest topic created from current AP news articles is sent from Achieve 3000 to each member of the class via email. Each article is scientifically matched to the student's individual Lexile reading level, thus providing differentiation for every student. The differentiated instruction lessons are scientifically proven to accelerate results in language arts instruction in the form of lexile gains and dramatically increased scores on end-of-the-year standardized reading tests, including the Scholastic Reading Inventory (SRI), TerraNova and the Iowa Test of Basic Skills.

Daily articles can also be selected by topic from the Achieve 3000 archives. Each lesson follows best practices known to support growth in reading. Each section includes a link to research to help set a schema, a lesson on reading for information, questions to demonstrate mastery of the text, graphic organizers to help the student create meaning, and opportunities to form an opinion based on the expository text and the student's life experiences.

Achieve 3000 has a built-in motivational tool that allows students to play games, earn stickers, and participate in world-wide polls with other students. The interesting topics are designed to develop an intrinsic interest in literacy and a true love of learning.

Teachers are able to access reports for each student, send specific assignments to each student via Achieve 3000's email, and print articles for whole group instruction. Parent reports are also available to families. Students are able to track their progress, select their own articles and email other students when using the program. Achieve 3000 is also accessible during non-instructional time such as at home, holidays and weekends.

**Homework Help** at Kaunakakai School was created because many Molokai students have no adult available after school to ask questions when they need help, nor do many have an appropriate place at home to do homework. Many students do their homework "on the fly" between school and ball practice with little opportunity to reflect and focus. Homework Help gave students the opportunity to work in a safe, quiet place that is conducive for learning with two adults (one teacher and one educational assistant) present to monitor them as they work on assignments. In addition, Homework Help has the added bonus of being on campus where



classroom teachers can be reached if clarification of the homework assignment is needed and to provide feedback to teachers when appropriate. Periodic checks between the classroom and Homework Help were made on a feedback form and on the instructional follow-up the students received based on their homework.

Due to the large enrollment, students were divided into seven grade level classes from K through 6. The objectives for Homework Help were to complete math homework assignments; to work independently and ask for assistance when needed; and to read silently, 20 minutes for grades K-2, 30 minutes for grades 3-4, and 30+ minutes or assigned minutes for grades 5-6.

Students were required to sign in each day. The school's homework policy ensured all students came with homework. If homework were completed, work was given by the Homework Help teacher that supported the quarterly benchmarks in math and reading. Students who completed their assignments were allowed to play educational board games, read quietly or work on additional paper-and-pencil activities such as math computation, word games, and logic puzzles.

The **Horticulture** class at Kilohana School was a hands-on class where students had an opportunity to learn how to grow and care for plants from seedlings to harvest, learn about local plant varieties, and learn how to use gardening tools and instruments to care for plants. Several of the students were continuing the class from the previous summer. The summer content focus was elements of composting with an emphasis on studying how worms are a vital part of soil quality and plant health. Students were given worm boxes and raised worms for the garden. They learned how to care for the worms, the life cycle of the worm and gained knowledge of the benefits worms provide to horticulture. Students continued to care for the worms and apply their knowledge to the Kilohana garden.

The class was divided into three segments. During the first segment the students observed their plants and recorded observations in their garden logs. The next segment focused on content. Topics introduced throughout the year included:

- soil types
- plant requirements for optimum growth (light, water, nutrients)
- plant life cycles
- plant propagation
- beneficial and non-beneficial insects
- step-by-step processes of planting seeds and transplanting seedlings
- growing plants and vegetables for sustainability and subsistence
- tools and equipment that aid gardening (Lab Quest, soil quality pH, and digital temperature instrument)
- growing native Hawaiian plants
- elements of composting
- caring for and using worms to support gardens

The third segment of the class was hands-on gardening. During the first two months of class students learned how soil types, weather conditions, light, nutrients, and water affect plant

growth. Students who attended the previous year were mentors to the new students. Plants were grown from seeds in pots and garden boxes constructed by the students. Students recorded their observations in their gardening logs.

The students planted many kinds of plants during the year - vegetables, herbs, flowers. Harvested plants were shared with students, staff, families and community members. Native Hawaiian plants included maunaloa, pohinahina, ohaiali`i, ma`o (Hawaiian cotton), ilima, ohai (for groundcover), and one type of mock sandalwood. These plants were planted around the school in gardens designed to be continued each year.

The Molokai Middle School **Math Team** class was created to improve student achievement in math while having fun with math and to experience math in a safe, competitive arena. The class was also a way to encourage students to participate in math activities beyond the classroom. Math Team is a non-traditional academic activity involving preparation and participation in a variety of math competitions and events.

A new technology, "Active Expression Learner Response System," was used to enhance student response time. The computerized system consists of individual computerized pods that each student uses to answer the math questions in the quickest time possible. Used in conjunction with a classroom smart board, each pod is programmed specifically for each student and stores the responses given in the pod memory. Responses are also saved in the computer for the instructors to review and plan for instruction. This competitive atmosphere gave the students many opportunities to respond, review their responses and plan strategies for improvement. In addition, the Math Team instructor utilized teacher-made materials and the *Math Counts School Handbook* as resources.

The Math Counts Competition is a national middle school coaching and competitive mathematics program that promotes mathematics achievement through a series of fun and engaging "bee" style contests for sixth, seventh and eighth graders. The program exists in all 50 states plus U.S. territories and the Department of Defense and State Department schools and is supported by the National Society of Professional Engineers at the state and local levels. Public, private, religious and home schools are eligible to participate. Each year, the *Math Counts School Handbook* is distributed to 50,000 middle schools nationwide. The handbook is designed to prepare students for the excitement and the challenge of the Math Counts Competition. Many resources are available on the Math Counts website. Once a school signs up for the Competition, materials are sent to the registered coach who will help facilitate a Math Counts School Competition.

The Math Team entered competitions on Molokai, Maui and Oahu. They attended Molokai's local competition at the St. Jude's Math-A-Thon, Purple Comet competition, and the AMC 8 competition. They also attended the Iolani IM2 and St. Louis Papahana Competition on Oahu and the MathCounts Chapter competition on Maui. Although they did not place, the students were inspired by the level of competitors and are eager to continue learning, practicing, and pursuing mathematical achievement.

Kaunakakai School **Math Whizz**, a computer-based program, focuses on the essential skills emphasized by HCPS III. Incorporating the latest research on student learning, the program provided access to K-8 math content through individualized instruction to remediate, reinforce and accelerate learning. Embedded formative and summative assessments provided instruction based on real-time student data. All students began with a placement pre-test to assess their current level of mathematical understanding.

As the popularity of Math Whizz grew, the students were separated into two classes: primary and upper grades. The objectives were: 1) demonstrate increased "math age" using the program's pre- and post-tests, 2) demonstrate increased gains in the program's math strands, and 3) demonstrate a positive attitude towards math.

Math Whizz has several learning support models: Core Enrichment, Intervention Programs, Extended Day, Summer School Programs, Acceleration/Gifted & Talented, Special Education, and Remedial Support.

In addition to the Math Whizz class, students could access Math Whizz during Computer Lab and at home. Parent engagement was encouraged, allowing them to access their child's math reports and educating them to encourage appropriate usage. Regular classroom teachers could monitor progress of their students attending the Math Whizz class, allowing them to more accurately target their instruction during the school day.

The Kilohana School **Media and Technology** objectives were to: 1) learn to use technology ethically, 2) learn the elements of Microsoft Power Point, and 3) complete one power point presentation. Students learned to import slides from the internet, use a variety of fonts, save and reorder slides within a presentation and how to use clip art within their presentations. Each student completed a power point presentation about themselves. They included their families, life events, hobbies, interests and any other pertinent information in their life. The presentations were shared in their regular education classrooms.

Kaunakakai School **Science Inquiry** class continued to focus on the Kaunakakai School greenhouse which was built the previous school year with grant funding from the Maui Economic Development Board (MEDB) and community contributions of construction labor (Lloyd Inouye and crew) and a truckload of cement from Goodfellows, Inc., a local contracting company. The objectives were to: 1) increase knowledge of hydroponics, 2) apply knowledge of hydroponics while caring for the greenhouse, and 3) increase knowledge of space.

The class was divided into two segments, hydroponics gardening and space study. Using materials and science experiments from Discovery Education, an educational website provided by the Hawaii DOE, students performed experiments, watched science videos, and worked on black-line master packets created by the instructors using the Discovery Education website. Content for these activities centered on physical science as related to space and hydroponics gardening.

The second segment of the class was hands-on gardening. Students had a chance to learn first-hand the elements of hydroponics gardening and use of solar power to operate the water pumps. Students learned to grow, maintain, and harvest plants grown hydroponically. A hydroponics

system was built in the greenhouse and the students grew lettuce, strawberries, tomatoes and beans. Water tanks containing tilapia fish and mosquito fish were connected to the plant beds. The unfiltered water containing fish waste helped to fertilize the plants. Students learned to grow, maintain, and harvest plants grown hydroponically.

The students explored a science inquiry project that incorporated starting a school-based greenhouse while also learning about ecosystems, sustainability, land restoration and the importance of native plants. Students made real-world connections via a field trip to a local hydroponics farm. On the field trip the students compared what they learned in a smaller greenhouse setting to how this occurs on a much larger scale. Students learned about the importance of native plants, land restoration, ecosystems, and local vegetation. To apply their knowledge, students traveled off island to Oahu and toured the Pacific Aviation and Space Museum, spent the night on the USS Missouri, and toured the USS Arizona. Additional travel included Kauai's Koke`e Center, environmental sites such as Waimea Canyon, riding a Zip Line, and visiting a taro patch where the students helped in the taro patch and made poi.

Helping students realize that they are never too young to begin to learn about their environment and to participate in the sustainability efforts of their own island's ecosystem was a constant focus of the instructors.

**Skills Support** was combined with **Tutor Support** at Maunaloa School and with **Academic Support** at Molokai Middle School.

The intent of the Maunaloa and Molokai Middle School **Skills Support** class was to balance the classroom-assignment link with differentiated, interactive computer-assisted learning in math and reading. Instructors monitored the students as they worked independently on Math Whizz and Achieve 3000 programs. Student reports were generated at the end of each semester and shared with teachers and parents.

Class objectives were to complete at least one Math Whizz lesson and one Achieve 3000 lesson per week and to continue to increase individual Math Age scores in Math Whizz and lexile scores in Achieve 3000.

Maunaloa School **Tutor Support** was created as a direct link to the regular education classroom to support students needing more time to understand concepts or to practice skills that are identified by their teachers as needing reinforcement. Targeted content as identified by the HSA scores, school-wide quarterly assessments, teacher recommendations and Edison Monthly Benchmarks were aligned with the Hawaii Content and Performance Standards (HCPS III) and Hawaii Common Core Standards in language arts, math, and science.

Objectives for the class were to: 1) participate in Daily Math Practice, Six-Minute Solution, and current events, 2) complete math homework, 3) read silently for the assigned amount of time, and 4) learn to work independently.

During the first half of the class all students participated in direct instruction in math and reading. For 15 minutes, students engaged in Daily Math Practice, a 36-week program to

strengthen math skills in computation, word problems, number sense, geometry, graphing and measurement. The Six-Minute Solution, a program designed to increase reading fluency was also used. Current events were covered to support the students' background knowledge. Individual tutoring of some of the students followed. For students able to work independently, the remaining class time was spent on completing their math assignments, writing in their reading journals, or reading silently.

Kilohana School **Tutoring** classes were created to provide interventions for non-proficient students as identified by the HSA scores, school-wide quarterly assessments, and teacher recommendations. Content for the course aligned with the Hawaii Content and Performance Standards (HCPS III) in language arts, math, and science and quarterly benchmarks. Tutoring was designed to accommodate a class size no larger than ten students for individualized remedial instruction, but due to a shortage of teachers, some classes had larger enrollments.

The objectives were to: 1) improve in specific areas of need, 2) improve study habits, and 3) improve homework assignment completion. Consistent communication with the students' regular education teachers helped to ensure appropriate targeted instruction. Both teacher-led and computer-assisted instruction was used to provide remedial instruction. Mondays and Thursdays were scheduled for guided remedial instruction and individualized homework assistance. Tuesdays and Fridays were scheduled for computer-assisted reading, science and math support. Computer programs used varied according to the needs of the learners - Education City, Math Whizz, Discovery Education, RiverDeep, Achieve 3000, and Read Naturally.

The Kilohana School **Tutorsaurus** was a language arts creative movement class for K-1 students. Although it was open to all K-1 students, students needing language development were recommended.

The objectives of the class were to: 1) enhance vocabulary using creative movement, 2) enhance reading comprehension via drama, and 3) demonstrate a positive attitude toward reading. Using the academic vocabulary needed for kindergarten and first grade, the students acted and danced to the word meanings. Using whole body movement, the students formed the shapes of the letters. To support phonemic awareness, they played sound games and sang jingles. Students listened as stories were read to them. Choral response was used to keep students focused. Students acted out stories to help improve their comprehension. These activities were designed to foster a love for reading.

The Molokai Middle School **Yearbook** class was designed to give students an opportunity to expand their writing skills in a variety of contexts, understand the process of producing a quality product from start to finish, and to become community contributors and give back to their school through a service project. The intent was also to ignite interest in yearbook production to improve enrollment at the high school level where enrollment is dwindling.

In creating a yearbook from planning to actual production, students were responsible for taking photos, writing stories and captions, completing layouts, and printing and binding. Throughout the year, students had an opportunity to be exposed to various careers as a photographer, computer technician, computer programmer, graphic artist and designer, book binding technician, production assistant, advertising agent, marketing manager and sales management. Specific instruction, guests and media were used to achieve the skill development the students needed to meet their goal of producing a school yearbook.

To get students excited on developing the locally-produced yearbook, the instructor lured students by showing a video from “Sweet 16” where the main character uses a yearbook and creates her own layout by placing pictures, captions and headings by hand. Having a “vision” to get started, the students completed activities similar to the video with success.

### STEM Mind-Building

This component was comprised of Beginning and Advanced Robotics, Bridges, CAD, FLL Robotics, Jr. Robotics and Vex Robotics. The start and end dates, days and time of week, number of days per week, number of hours per week, number of weeks, number of students (adults denoted by A) are shown below by schools for Semesters 1 and 2 (top and bottom lines respectively). Some courses were offered for one semester only.

Activity	Start Date	End Date	Days And Time Of Week	Days Per Week	Hours Per Week	# Wk	Students
<b>KAUNAKAKAI SCHOOL</b>							
Advanced Robotics	1/9	5/14	M 3:00 - 5:00	1	2	12	7
Beginning Robotics	1/12	5/14	Th 3:00 - 5:00	1	2	13	6
CAD	10/8	12/12	M 3:00 - 5:00	1	3	18	9
	1/9	5/9	M, W 3:00-5:00	2	4	16	13
FLL Robotics MMS	8/9	12/13	M, T, Th 2:30 - 5:00	1	2	18	6
FLL Robotics Boys	8/9	12/6	T, Th 3:00 - 5:00	2	4	17	6
FLL Robotics Girls	8/9	11/12	T, Th 3:00 - 5:00	2	4	13	7
Jr Robotics	1/17	5/17	T, Th 3:00-4:30	2	3	15	16
<b>KUALAPUU SCHOOL</b>							
FLL Robotics	8/9	12/8	T, Th 2:45 - 5:00	2	4.5	16	8

MOLOKAI MIDDLE SCHOOL							
Bridges	9/7	12/14	W	1	1.5	14	4
	2/6	3/17	3:30 - 5:00	1	1.5	4	11
MOLOKAI HIGH SCHOOL							
Vex Robotics	8/1	1/19	M -Th 2:00 - 3:30	4	6	14	11

**FLL Robotics** and **VEX Robotics** were offered during the first semester, **Junior, Beginner and Advanced Robotics** during second semester and **Bridges** and **CAD** during first and second semester to meet varying student skill levels.

**Jr. Robotics** was an introductory robotics class for grades K-3. Students in Jr. Robotics read, explored and learned about simple machines. They utilized technology to build simple machines using the Motorized Mechanisms set by Lego Education. Students also compared how simple machines work to make life easier. During the second half of the class, students were introduced to the NXT Mindstorm platform. They learned to take inventory and identify the parts and pieces in the kit. Students then built a “basic bot” exploring simple construction techniques and implementing engineering principles as they designed and built their bot. Students were introduced to basic programming with Level 1 challenges such as following a straight line, squares, circles, etc. Students tested and ran programs according to challenge requirements.

**Beginner Robotics** was an introductory robotics class for grades 4-6 students who had never taken the Jr. Robotics class. The first half of the class was the same as Jr. Robotics. During the second half, students were given Level 2 challenges which included linking Level 1 challenges in a series, a bulldozing/push challenge, a transportation/delivery challenge, a hole-in-one/hitting a target challenge, and a retrieval/pull challenge. Level 2 challenges required students to rethink and modify their robot design and programming. Students built attachments that push, pull, deliver, or hit challenge pieces from one point on the mission mat to another. Students were also introduced to the use of a third motor and were encouraged to reflect on testing results and/or to stabilize construction to ensure consistency.

**Advanced Robotics** was a Level 3 robotics class for grades 4-6 students who had taken either the Jr. Robotics or the Beginner Robotics class. Students were introduced to an inquiry unit on gears. Students learned how a gear works, the parts of a gear, and how to create mechanical advantage through gear ratios. Students were able to distinguish how to gear up or gear down as they chose between torque and power vs. speed. Students applied this knowledge in a Level 3 speed challenge. Students were also introduced to how sensors work and advanced programming. Students were encouraged to complete Level 3 challenges such as detecting or reacting to sound using the Sound Sensor, triggering an on/off position on a challenge piece using the Touch Sensor, and avoiding obstacles on the mission mat and determining distances using the Ultrasonic Sensor to detect an object and measure its proximity in inches or centimeters. Other Level 3 challenges included following a straight line, square or circle using a Light Sensor to read light intensity (lightness or darkness) from the surrounding environment (the line) and sorting different colored LEGO bricks or locating different colored lines and challenge pieces using the Color Sensor. Level 3 challenges encouraged students to expand their

exploration of construction techniques and programming as they implemented engineering principles into their robot design using the NXT Mindstorm kit and software. Technology is further emphasized as students engaged in critical thinking and problem solving as they inquired about systems and how each robotic part relates to every other part. Students tested and ran programs according to challenge requirements. Technology was revisited as students rethought and modified design and programming to reflect testing results and/or to stabilize construction to ensure consistency.

The **FLL Robotics** class was for students in grades 4-9 who had taken either the Beginning or the Advanced Robotics class the year before. Classes for Kaunakakai, Kualapuu, and Molokai Middle School (held at Kaunakakai School) required students to compete in a First Lego League (FLL) robotics tournament. Students engaged in an inquiry-based learning project within a variety of STEM fields. Students identified a community problem and then created an innovative solution to the problem. Identifying and solving community issues required students to interview local experts, to survey local citizens, and to decide collectively what the best solution was for their community exemplifying how science, technology and society are interrelated.

Students self chose, designed, researched, conducted, implemented and orally presented projects to their peers, families, schools, community and to a panel of FLL judges. The research project provided a vehicle for interweaving the Hawaii Content and Performance Standards (HCPS III) in science, math, literacy, and performing arts with technology at its forefront.

Technological skills were taught and students were required to gather information from expert and primary resources via Skype interviews, locate information on student-friendly websites, collect resources by highlighting, save information to Word documents, and present information on PowerPoint presentations, brochures, and spreadsheets.

Students were also required to program a 2½ minute-autonomous robot to score points on a thematic playing surface. Students presented their robot and technical design during a 5-minute FLL Tech presentation before judges. Students were encouraged to demonstrate critical thinking and problem-solving skills in their mission strategy, innovative design through stable robot construction, and consistency in program execution using sensors. Molokai robotics teams were also encouraged to incorporate technology with a computer-aided design (CAD) model of their robot. Students demonstrated cooperation, the ability to do the work as a team and to find solutions with guidance from coaches and mentors, the capacity to learn together, the ability to honor the spirit of friendly competition, the awareness that what they discover is more important than winning, the value of sharing their experiences with others, the importance of displaying Gracious Professionalism and “Competition” in everything they do, and above all... having FUN!

The “Sense-see-able Solutions” team was based at Kualapuu Elementary School. Five (5) sixth graders researched the problem that people contaminate food without realizing it and their solution was to create two products that prevented contamination - a chameleon pan and the “rockin’ soap dispenser.” The chameleon pan was made of a temperature sensitive liquid crystal polymer that changes color when the food inside it falls within the food danger zone - 40°F-140°F, a temperature range at which bacteria grow rapidly. The “rockin’ soap dispenser”



detected hand motion, sang a song and played a video about proper hand-washing techniques. The team presented their research to the regional judges through a PowerPoint presentation and was awarded first in the Project Award Category.

The “Molokai Blizzard Boys” team was based at Kaunakakai Elementary School but was comprised of students from the 5<sup>th</sup> through 8<sup>th</sup> grades. They researched the problem of industrial freezers malfunctioning during non-store hours and causing food spoilage. Their solution was to create a wireless sensor that transmits temperature information to an app on an iPhone, iPad, or smartphone. Their idea was so innovative they have a possible investor who may want to patent the product. They presented their research to the judges by doing magic tricks and were awarded the best robot design. They moved to the state competition held on Oahu in December and won first place in the core values section of the competition in “Teamwork.”

The “Molokai Solar Girls” was based at Kaunakakai Elementary School. Seven girls, ages 10 through 13, researched the problem of properly refrigerating food to prevent mold and how moldy food is dangerous and can lead to food poisoning. Their solution was to create a solar-powered cooler that would keep food cold while on-the-go and would also have an outlet that would be able to charge cell phones and other electronic devices. The girls presented their research through a skit that included costumes, props, and song and dance numbers. They became the first alternate to attend the state competition.

The “Molokai Oompa Loompas” team of 6<sup>th</sup> through 9<sup>th</sup> grade girls was based at Molokai Middle School. They researched the problem that people are consuming meat that is undercooked or raw and may become sick because of it. Their solution was a “pressurator,” which used pressure to crush any living things' DNA, including germs, leaving uncooked meat germ-free and safe to eat, without distorting the meat in any way. They presented their research to the judges through a song and dance routine that was based on “Charlie and the Chocolate Factory” complete with costumes. They won the Maui Tournament Championship Award, making them the overall winners of the regional competition, and moved to the state competition on Oahu in December. They won first place in the core values section of the competition for “Gracious Professionalism.”

A final component of the class was the opportunity for students to visit and explore STEM career fields with various technological and engineering companies, as well as, universities and educational institutions. Students met and learned from STEM professionals, engineers, and professors. Students visited the Air Force Maui Space Surveillance Site and met with Dr. Skip Williams and Dr. Stacie Williams who introduced them to various engineering careers in the Air Force. In addition, students toured the robotic optical telescope that combines large-aperture tracking optics with visible and infrared sensors to collect data on near Earth and deep-space objects. Students learned how professionals conduct research on space object tracking and satellite tracking. Students also toured the Maui Humane Society and learned about various career pathways working with animals. During the Oahu State Championship, students interviewed Captain Brian Osgood, USN Navy Commander, Pearl Harbor Naval Shipyard and learned about various STEM Careers in the Navy. Finally, students met with the Maui Economic Development Board – Women in Technology professionals. Students were encouraged to pursue STEM-related fields.

Molokai High School **VEX Robotics** students were also members of the Molokai High School VEX Robotics Club. Students discovered, invented and investigated robotics using scientific process skills with the VEX Robotics Design System. Students learned about the VEX substructure, design process, and building a prototype bot, and familiarized themselves with inventory to organize the VEX equipment. They learned how to program using the Robot C software and computer language and familiarized themselves with the rules and parameters of the thematic robotics challenge game - Gateway.

As the class progressed, students prepared for various competition tournaments including the Maui County VEX Tournament held September 30 to October 1, 2011. They were required to program a 30-second autonomous program followed by a 2½-minute manually controlled round. Students were encouraged to make design modifications to meet the parameters of the thematic robotics challenge game. Modified bot designs and programming reflected testing results, a stable construction, accuracy and consistency.

A final component of the VEX class was the opportunity for students to visit and explore STEM career fields with various technological and engineering companies, as well as, universities and educational institutions. Students met and learned from STEM professionals, engineers, and professors. Students toured the University of Hawaii Maui College and met with Dr. Debasis Batacharya and Dr. Refugio Gonzalez to learn about the Applied Business and Information Technology and Engineer Technology 4-year degree programs. They also visited TREX Enterprises and met with Ned Davis to learn about TREX engineering systems including their metal oxide semiconductor (CMOS) image sensors, millimeter-wave communication systems, adaptive optics and other innovative sensor and electro-optical systems.

**Computer-Aided Design** (CAD) was held at Kaunakakai School for upper grade, middle and high school students. The objectives of the class were to: 1) learn to use the Google Sketch Up Program; 2) work collaboratively on a 3D project of the students' choice; and 3) understand the basic geometric concepts and their coordinates on three axes. The class used computers and CAD software that assist engineers and designers in a wide variety of industries to design and manufacture physical products ranging from buildings, bridges, roads, aircraft, ships and cars to digital cameras, mobile phones, TVs, clothes and computers.

Each class began with guided instruction on the Sketch Up 3D modeling features followed by guided practice. Students progressed from basic introductory information to beginning their own project. The following 3D modeling features were introduced:

- Edges and faces – straight lines and faces in 2D shapes
- Push/Pull – to extrude a flat surface into a 3D shape
- Precise dimensions - for building scale models
- Follow Me tool – to create curved outlines
- Paint Bucket – to apply colors
- Groups and Components – to build doors, windows, trees, chairs, etc.
- Shadow Engine - to add shadows
- Scenes – to create animations
- Sketch Up Instructor – dialog boxes to guide students

During hands-on learning time, instruction was differentiated so that students could work and create projects at their level of understanding and skill. Many of the CAD students also participated in FLL Robotics competition and were able to apply their newly-learned skills to their projects. Three first semester students continued to work on their CAD projects and mentored the second semester beginning students.

The Molokai Middle School **Bridges** class was inspired by the American Society of Civil Engineers' Popsicle Stick Bridge Competition. The objectives were to: 1) learn and apply the skills of teamwork to solve an engineering problem, 2) apply math concepts to an engineering problem, and 3) explore career pathways in engineering. During the classes, the students worked on researching, designing and constructing popsicle stick bridges. In order to do this they had to research best practices for bridge building and look for design inspirations. Students practiced using their oral communication skills to plan their bridge presentation.

The Bridges class entered the ASCE Popsicle Stick Bridge Competition held on Maui. Teams were awarded points based on their bridges' performance in the different categories of competition. At the end of the competition, all points were tallied and an overall winner was declared. Prizes were also awarded in the individual categories of strength, design aesthetics, presentation and technical report.

The first and most basic stage of the competition was the design stage. The class planned their design using the science and math skills learned in school. They applied the science and math skills to what they learned about bridge-building concepts - load distribution, tension, compression, and trusses. Research was conducted on different bridge types by finding books on the subject at the school and town libraries, searching for articles on the internet, and talking to local engineers for ideas on different bridge concepts. Molokai is fortunate to have several active and retired engineers in residence who were willing to mentor the middle school students.

Once the team had an understanding of bridges, they entered the design selection phase where they eliminated the types of bridges which were not suitable for the specific circumstances and did not accomplish the desired results of the competition. Each team member explored and researched different approaches to the bridge design. The research was then presented to the entire team for selection of the best plan. Emphasis was placed on the technical aspects of the bridge design. Each team used measurement and geometry to make a sketch of their bridge on graph paper before beginning the construction process. Questions were addressed such as How can the weight of the bridge be kept to a minimum (requirement was less than one pound)? How can the bridge be kept together while the glue is drying? Which sticks should be glued first? Are the sticks at the proper angle? Although the instructor guided the process, the team used trial and error while constructing the bridge. Students practiced by having in-class competitions to test their bridges.

The final preparation for the Bridges competition was planning the presentation. A case history report documenting the design and construction was created. In competition, reports are judged on content, structure, and grammar. A visual display was also required that included schematic drawings of the design including how it works. The team needed to be creative and imaginative as possible to capture the judges' eye during the five-minute oral presentation. Through research

and bridge building, students were inspired and now have a glimpse of a possible career in engineering.

### Strength-Based Community Building

This component was comprised of Art, Ceramics, Chess, Dance Fitness, Dancercise, Drawing & Painting, Instrumental Music (Brass, Violin, Woodwind), Kempo, School of Rock, Silk Screen, Beginner and Advanced Tahitian, and Ukulele. The start and end dates, days and time of week, number of days per week, number of hours per week, number of weeks, number of students (adults denoted by A) are shown below by schools for Semesters 1 and 2 (top and bottom lines respectively). Some courses were offered for one semester only.

STRENGTH-BASED COMMUNITY BUILDING							
Activity	Start Date	End Date	Days Of Week And Times	Days Per Week	Hours Per Week	# Weeks	Students
<b>KAUNAKAKAI SCHOOL</b>							
Art Lower	8/8	12/12	M 3:00 - 4:00	1	1	18	14
	1/18	5/7		1	1	14	9
Art Upper	8/10	12/12	W 1:15 - 2:15	1	1	18	14
	1/4	5/9		1	1	14	10
Dance Fitness	8/23	12/13	T 4:00 - 5:00	1	1	16	10A
<b>Instrumental Music</b>							
Brass	8/8	12/7	M, W 4:15 - 5:00	2	1.5	17	2
Woodwind	8/16	12/7	T 4:00-5:00	1	1	17	2, 14A
Brass/Woodwind	1/10	5/10	T,Th 4:00-5:00	2	2	16	6, 2A
Violin Beginners	8/8	12/7	M,W 3:00 - 3:30	2	1	17	10
	1/4	5/8		2	1	16	13
Violin Advanced	8/8	12/7	M, W 3:30 - 4:15	2	1.5	17	8, 6A
	1/9	5/9		2	1.5	16	7, 3A
School of Rock Elementary A	8/8	12/12	Th, F 4:30 - 5:30	2	2	18	11
School of Rock Elementary B	8/11	12/13	M, W 4:30-5:30	2	2	18	11
	1/4	5/18	Th, F 4:30-5:30	1	2	19	12
School of Rock MMS	8/11	12/13	Th, F 5:30-7:00	3	6	18	9
	1/4	5/18					9
School of Rock High School	8/8	12/13	M, W 5:30-7:00	3	6	18	12
	1/4	5/18	Th, F 5:30-7:00	2	3	19	7
Tahitian Beginner	8/16	12/13	T 3:00-4:00	1	1	17	16
	1/10	5/8		1	1	14	24

Tahitian Advanced	8/18 1/4	12/13 5/9	Th 3:00 - 4:00	1 1	1 1	17 15	8 7, 1A
<b>KILOHANA SCHOOL</b>							
Dancercise	2/13	5/2	M,W, F 4:00 - 5:00	3	3	7	24
Drawing & Painting	8/24	12/7	W 1:15 -3:15	1	2	14	22
Kempo	8/22	12/8	M, T,Th 4:00-6:00	3	6	14	11
Silk Screening	2/8	4/25	W 1:15 -3:15	1	2	8	10
Violin	8/23 1/23	12/9 5/18	F 3:00 - 4:00 M,W,F 3:00-4:00	1 3	1 3	14 14	17 9
<b>KUALAPUU SCHOOL</b>							
Ceramics	8/16 1/10	12/15 5/17	T, Th 2:45 - 4:00	2 2	2.5 2.5	16 16	24 10
Violin	10/18 1/10	12/15 5/17	T, Th 3:00-4 :00	2 2	2 2	16 16	23 20
<b>MAUNALOA SCHOOL</b>							
Open Computer Lab	1/4	5/16	M, W 4:00 - 5:00	2	2	18	
<b>MOLOKAI MIDDLE SCHOOL</b>							
Chess	8/25	12/8	T, Th 3:30 - 5:00	2	3	15	11
Ukulele	3/1	5/15	T, Th 3:30 - 5:00	2	3	10	8
<b>MOLOKAI HIGH SCHOOL</b>							
Chess	8/25	12/8	T, Th 2:00 - 3:30	2	3	15	11
Ceramics	1/9	5/2	M, W 2:00 - 5:00	2	6	16	9, 2A

Kaunakakai School **Art** classes were divided into upper or advanced students and lower or beginner students. Students learned to use a variety of art tools, media and techniques. Using famous artists' work as exemplars, students learned about the elements of line, color, shape, composition, pattern and value in art. As in the previous year, students followed the guidelines of the Hawaii Arts Alliance Toolkit to pose critical questions to express their ideas and feelings about art.

Students were introduced to the elements of composition and they showcased their new knowledge by painting still life paintings using flowers, fruits and containers they were familiar with. Pastels, watercolor, crayons, colored markers, and acrylic paints were all used at various times to produce beautiful compositions. Students viewed famous masterpieces to sharpen their artistic eyes. This process was repeated with portraits and landscapes.

Students were instructed in techniques used to shade and create texture, and use of color to draw attention to areas of the composition. More experienced students were instructed to use color and composition to express ideas or emotions in their work. Expressing feelings and ideas about

art was a major focus. Students were encouraged to refer to the Hawaii Art Alliance 3 levels of questions to guide their thinking when viewing pieces of art:

***Levels of Questions:***

1. **Describe** artworks:
  - What do you see or hear? What (colors, sounds, shapes, instruments, movements, etc.) can you name?
  - What is missing? What do you not see or hear?
  - Compare this work with another work of art. What similarities and differences do you see or hear?
  - What is the title of this work? Who is the artist?
2. **Interpret** artworks:
  - What are the relationships between the objects or characters?
  - What does this remind you of?
  - How does the work make you feel and why?
  - What mood or feeling do you think the artist is trying to convey? Describe elements that make you think so.
  - Does the artist have a message to convey? If so, what might it be? If not, why not?
  - What does this work of art tell us about the culture or time period in which it was made?
  - Why do you think the artist selected these elements to work with?
  - What might the artist look like? If the artist were here, what would you say to him/her?
3. **Evaluate** artworks:
  - How well does the title of the work capture the essence/meaning/purpose/idea of the piece? Why or why not? What other title might you give it? And why?
  - What was the most interesting or surprising aspect of the work and what made it so?
  - What are the reasons that other people should or should not experience this work of art?
  - If you were the artist, what would you do differently?
  - Do you like this? (Would you buy it?) Why or why not?

Looking at art from this stance not only helped students express their ideas about art, it also “raised the bar” in higher-level thinking skills related to art. Students were taught how to create a portfolio of their artwork and the teacher displayed their art work in the Kaunakakai School Library each month.

Kualapuu School and Molokai High School **Ceramics** was designed for students to learn about the physical properties and materials related to working with clay. The objectives for the class were to: 1) develop skills working with clay materials and techniques, 2) practice cooperation when working with others, and 3) practice communication and expression through art.

At Kualapuu School, students learned to listen carefully and follow instructions. They worked in groups and created individual and group clay pieces. They learned to create “pinch pots,” which is a basic method for ceramic projects. The method begins by forming a clay ball and by using

the thumb the artist pinches and turns the ball to create a pot, thus the name “pinch pot.” The class then learned to attach things to their pinch pots by scoring the clay and using “slip,” which is watered down clay that acts as glue. The students created beautiful turtles using the new methods they learned. The students enjoyed learning new techniques and creating things that they could share with their families. Art classes not only teach children to make works of art, but also teach them that creating things takes time, patience, and practice. Art helps students learn that it is not always about the end result but how they got there and what they learned along the way; and to take pride in what they accomplished on their own.

Molokai High School **Ceramics** was designed as an open ceramics studio where people of all skill levels could attend and learn the skills of ceramics. High school students taking ceramics during the school day were able to extend their learning during this enrichment class. Students focused on different clay techniques, such as hand building or wheel throwing. The basic hand-building techniques offered were the slab, coil, and pinch pot methods. The slab technique involved creating a flat surface out of clay and pressing shapes and designs into the slab or using the slab to construct a cylinder shape. The coil technique involved rolling the clay into a long “rope” and then using the “rope” to create shapes. The pinch pot method began by forming a ball out of clay and by using their thumbs, the artists pinched and turned the ball to create a pot, thus the name “pinch pot.” Once the students had perfected their different hand-building techniques they were able to use the pottery wheel and the wheel-throwing technique. Wheel throwing involved placing the clay on a large spinning pottery wheel and, by using pressure and the spinning motion of the wheel, the artist then molded the clay into a circular shape. Students were able to either display their work at the Molokai High School library or take their creations home to share with family. Most students are planning to continue learning about ceramics next school year.

**Chess** class was offered for middle and high school students. Often the high school students remained for the 3:30 pm middle school class which was on the same campus. The class was designed to give students a chance to exercise their complex-thinking skills to add to the students' understanding and application of the game in an atmosphere of friendly competition. The objectives of the class were to: 1) develop foresight and forward thinking, 2) develop and sharpen problem-solving and complex-thinking skills through numerous variables and deepen the concept of short-term, long-term consequences for every action, 3) apply their knowledge of chess moves, and 4) exhibit a positive competitive spirit.

Since most students already knew the basics, the class focused on refining strategy skills. Students were instructed on how to transition through the game from the beginning, to the middle and the end of the game. Students partnered and played against each other, giving them the opportunity to compete in a friendly, learning atmosphere. Lessons from the International Chess League were used by the instructor to strengthen the strategy skills of the students.

Kaunakakai School **Dance Fitness** was an exercise class for adults. Using exercise routines created from several popular dance exercise routines, the adults worked up a sweat following their instructor's movements to energizing music. The objectives of this class were to: 1) understand the need to advocate for personal, family, and community health, 2) participate in regular physical activity, and 3) learn dance routines designed to support physical fitness.

Students in the class supported and encouraged each other to participate in a regular exercise program between classes.

The objectives of the Kilohana **Dancercise**, an exercise class, were to: 1) understand the need to advocate for personal, family, and community health; 2) participate regularly in physical activity; and 3) learn dance routines designed to support physical fitness. Using exercise routines created from several popular dance exercise routines, the students worked up a sweat following their instructor's movements to energizing music. Activities were designed to teach dance exercise movements, to stay healthy, monitor body (heart rate, breathing) to analyze how tired the body is, establish a positive relationship with all students and set a health goal.

The Kilohana School **Drawing and Painting** class had many students who were continuing their study from the previous school years. Landscapes were the content focus for the summer program and continued to be one focus for Semester 1. Students had opportunities to draw landscapes and still life using various media and tools. Chalk, pencil, charcoal, pastels, and colored markers were used. Students also had opportunities to paint landscapes with tempera and watercolor paints using flat brushes and filbert brushes.

Elements of composition and color were taught. K-3 students focused on using the entire page, balance, use of background and point of view. They practiced mixing colors to produce hues and tones. Grades 4-6 students focused on perspective, horizontal balance and harmony within their drawings. Using the color wheel, all students applied knowledge of color schemes, complementary colors, hues, tones, and neutral colors. The upper grades discussed how color can be used to intensify emotions and ideas in a drawing or painting. The students' drawings and paintings were displayed in the school cafeteria and office for the community to view. Comment cards were made available so the students could have feedback on their work. They were proud of their display and enjoyed the community comments.

The **Instrumental Music Program** provided an opportunity for students of all ages to learn to play a musical instrument. The instruments for instruction were those in the string family (violin), the woodwind family (flute, clarinet and saxophone), and the brass family (trumpet, trombone). The violin is suitable for all ages, from kindergarten through senior citizen, because it comes in a range of sizes from  $\frac{1}{4}$  to full size. The brass and woodwind instruments are suitable for ages 9 through senior citizen. Lower grade students cannot easily play the brass and woodwinds because of the size of the instruments.

The violin classes were offered at Kaunakakai, Kilohana and Kualapuu Elementary schools. The woodwind and brass classes were offered at Kaunakakai Elementary School. Students learned how to read music and produce a sound on their chosen instrument. Class objectives for violin were to: 1) identify and play rhythmic values - quarter, half, and whole notes; 2) read notes for and play open "E" and open "A"; 3) identify the major parts of the violin, 4) demonstrate correct bow grip and play up and down bow markings. Class objectives for brass were to: 1) use correct valve and slide combos to change pitch, 2) read music with multiple measures, and 3) successfully play a simple melody. Objectives for all other instruments were to: 1) learn the fundamentals of one measurement, 2) learn to read and play one musical piece, and 3) learn the skills needed to perform before an audience.



Instruments were checked out to children and adults after it was determined that the students were committed to the class and the instrument would be used appropriately and ethically. Parents/Caregivers signed an agreement to pay for lost or damaged instruments. The instructors focused on the academic benefits of instrumental music. Playing a musical instrument and reading music have many positive benefits for students. Students engage problem-solving skills when they learn to master the mechanics of their chosen instrument. For example, when playing a violin, students must find the optimal amount of bow pressure to produce a full sound while simultaneously using the correct finger position to attain the right pitch. It is hands-on learning in which the brain processes and coordinates information from the eyes, ears, and fingers. Problem solving is also evident when students learn to read music. It requires the simultaneous deciphering of the rhythmic value and pitch of each note.

Younger students engage math skills when they are introduced to reading notes. The rhythmic value of notes is fraction-based. Literacy in younger students is reinforced when they use the left to right, sweep back left to the next lower line, used when reading music. Upper grade students also learn the physics involved in producing a sound on a musical instrument by exploring the relationship between pitch and frequency. For example, a student playing the open “A” string on a violin will learn that it is vibrating at 440 cycles per second. Playing a musical instrument promotes positive learning behaviors such as discipline, focus, and determination. It also promotes team building and helps connect students to world culture. Graduating high school students who play an instrument well can sometimes receive scholarships from universities in exchange for participating in a marching band program.

The music students performed at the December 13, 2011 Hoike at Kaunakakai School. The students were also highlighted in a Hawaii State Teachers Association (HSTA) video clip on the local news channels.

The objectives of Kilohana School **Kempo**, a form of Karate, were to: 1) demonstrate warm-up movements, 2) perform Kempo movement sequences, and 3) demonstrate movement form. All movements were based upon Kempo principles:

- establishment of base - firmly rooted on the ground to help block, strike or kick an opponent
- principle of distance from the opponent
- economy of motion – learning prelude to strike
- timing – learning to block effectively
- blocking – done with wrist and elbow from the inside and above the elbow on the outside.

Each class began with warm-ups. After warm-ups the students were taught how to perfect some of the techniques used to support the principles of Kempo. Defensive arm and leg movements were practiced. Emphasis was placed upon non-violent self-defense techniques. Participants were encouraged to wear a uniform while learning the principles of Kempo.

Maunaloa School **Open Computer Lab** participants were given opportunities to use the computers for internet exploration, computer-assisted reading and math, student projects and word-processing skills during Semester 2. Open Lab was available to students and community

members from 4-5 pm daily. The following programs were available for the students and community:

Activity	Focus of Activity	Participating Grade							
		K	1	2	3	4	5	6	
Type to Learn	keyboarding skills				X	X	X	X	
Type to Learn Jr.	keyboarding skills	X	X	X					
Appleworks/MacIntosh	editing skills	X	X	X	X	X	X	X	
Appleworks/MacIntosh	keyboarding skills	X	X	X	X	X	X	X	
Appleworks/MacIntosh	presentation skills, powerpoint	X	X	X	X	X	X	X	
Web Search	research skills	X	X	X	X	X	X	X	
Discovery Education	Research skills	X	X	X	X	X	X	X	
Achieve 3000	Reading comprehension				X	X	X	X	

Kaunakakai **School of Rock** provided an opportunity for students of all ages to learn to play a musical instrument used in today’s popular bands, how to set up a PA system with amplifiers, how to care for the instruments, and learn to read music as it relates to the instruments the students selected to play. Singing was an option for School of Rock students not wanting to play an instrument. Objectives for the classes were to: 1) play an instrument and/or sing a song, 2) perform two songs and/or sing a song, and 3) form a musical group and perform in public. Many students in the class had never played a musical instrument before, nor had they ever performed on a public stage. Other students were continuing the class from the previous year. Classes were structured by student skill level. The level of difficulty was differentiated by dividing into four classes, two elementary school classes (A and B) for students in grades 4 – 6, one class for middle school students, and one class for high school students for Semester 1; and one grades 4-6 and a combined middle school and high school class for Semester 2.

The instruments available for instruction were full sets of drums, keyboards, electric guitars, electric bass, and acoustic guitars. Although instruments could not be checked out, they were available for student practice on the Kaunakakai School campus after school.

Musical groups were created at the beginning of the classes. Elementary school level classes concentrated on learning one song. Class “A” chose “Love It” and Class “B” chose “Cool Down.” Practice included trying various arrangements for the songs, interchanging instruments and playing solo parts. Middle school and high school students practiced playing multiple songs. Each student learned to play at least three instruments for each song. They planned a musical program suitable for various audiences such as the Molokai High School Community Event, a church Christmas party and the 21<sup>st</sup> Century Hoiki. Performances can be found on Facebook and YouTube.

The Kilohana **Silk Screening** class was instructed by a well-known local silk screen T-shirt artist. She taught the methods that she uses in her own business, which some may call “old school.” Most silk screeners today use current technology and the more modern technique of creating screens using a special light and chemicals that actually burn the design into the screen. Kilohana’s silk screen instructor uses the more time and labor intensive process of using an Exacto knife and actually cuts each detail of the design into a screen.

The objectives for this class were to: 1) use a variety of art and technology media to create an original work of art; 2) identify ways that hobbies, personal interests, and strengths may lead to a career interest; and 3) learn the steps to starting a silk screen printing business. Activities were designed to use hand and eye coordination to create a scale drawing, research the internet for possible designs of interest, create an informational poster (start of print design), and learn to utilize colors that enhance one another.

The K-6 silk screening class began by brainstorming what interests the students had and what they would like to create silk screens for, such as t-shirts for special occasions or banners. The class then created a picture or searched for a design online to trace. The students used screens that the instructor already had made to practice the actual silk screening technique to decorate t-shirts, pareos, and pa’u skirts. Students learned the art of silk screening and fashion design using the tools and resources needed to learn silk screening.

The class also gave students ideas for their future. It not only taught the students how to silk screen, but the instructor also encouraged the students to think about how they could use these designs in a business. Students were asked to think about what career or type of business they would like to have in the future and then think of a logo they could design for that business. The instructor also had them think about designs that they could create to sell by having them think about the consumer and what the consumer might want to buy. Many of the students hope to continue the class in year 5.

The Kaunakakai School **Tahitian Exercise** class offered students many of the movements of Tahitian dance in a less formal setting, giving students and adults the opportunity to experience a part of their culture while increasing wellness through exercise. The class covered the basic fundamentals of Tahitian dance, as well as the skills that improve muscle control, flexibility and tone.

Dance Movement	Explanation
Afata	Box - hips move in the shape of a box
Fa'arapu	Hips move around in fast circles
Fa'arapu-varu fa'arapu	Hips move around in fast circles in the shape of figure eight
Ope-pics left and right	Put one leg out and push and then the same on the other side
Ruru-freeze	Tahitian shimmy
Tamau	Sway left, sway right
Te'i	On toes
Toma-double bump	Hips hit twice to one side and then the other
Varu	Hips move in a figure eight

Classes were divided into two levels, beginner and advanced. Within the classes ten families were represented. The first fifteen minutes of each class was comprised of warm-up exercises. The remainder of the class time was spent learning dance movements choreographed to traditional and contemporary Hawaiian music. This stress-reducing class put smiles on the faces of its participants. It was a great vehicle for people of all ages, shapes and sizes to come together and be comfortable to work and move their bodies in a cultural atmosphere. By the end of class the participants not only developed a sweat, but they left with a sense of community spirit. The class performed for the community at the December 13, 2011 and May 13, 2012 Hoike at Kaunakakai School.

The second semester Molokai Middle School **Ukulele** class provided instruction, practice, and application of Hawaiian Mele (traditional/contemporary Hawaiian songs, chants, hula, and music) to prepare for student performances at grade-level wide, school-level wide, and community/parent night activities in Hawaiian Mele, and to network 21st Century after-school Hawaiian Mele activities with Hawaiian history/social studies Grade 7. Three skill objectives were to: 1) learn three or more chords and apply them to Hawaiian Mele, 2) hold and strum ukulele appropriately while performing Hawaiian Mele, and 3) demonstrate knowledge of the parts of the ukulele. Activities were planned to provide a variety of ukulele, singing, hula, sound-system, staging instruction, training, and practice, to build a repertoire of common mele and hula for students to use at their disposal when performing, and to bridge instruction between Hawaiian Mele and Hawaiian history.

The ukulele class was open to all ages and all skill levels. The class combined the historic, cultural aspects of ukulele with modern technology such as the internet and YouTube to find popular songs that the students were interested in playing. Students were given time to search on the internet for songs they wanted to play and, with the help of their instructor, the students were able to put chords to the music. This non-traditional approach to teaching ukulele allowed the students to find songs they wanted to play to enhance student engagement. The class also played along with song videos on YouTube. The ukulele class not only played contemporary or modern songs, but they also learned traditional Hawaiian songs. Learning ukulele helped students be in touch with their culture as well as learn to play as a group and be comfortable performing in a school setting or in the community.

The class's culminating event was a performance on the Up Link After School Parent Night.

## **SCHOOL YEAR PROGRAM FINDINGS**

### **Findings by Components and Teachers**

Evaluation forms (Appendix C) were administered to students, parents, project teachers and regular teachers for feedback on the project. The students responded to six General Learner Outcomes (GLOs) and Project Activities. The GLOs (Appendix A) were rated according to a 4-point scale: Always, Usually, Sometimes, Rarely. The Project Activities listed below were rated according to a 3-point scale: Usually, Sometimes, Rarely.

1. I met the class objectives
2. I participate in class.
3. I pay attention in class.
4. I behave well in class.
5. I get along well with other students.

The parents responded to GLOs, helpfulness and adequacy of the class. The 5-point GLO scale was Strongly Disagree, Disagree, Neither Disagree nor Agree, Agree or Strongly Agree. They responded Yes, No or Not Applicable to helpfulness in 5 areas: math, reading, science, personal development and importance of education. They rated adequacy of the class (content, teaching, pacing, environment, and interaction) according to a 5-point scale from Poor (1) to Excellent (5).

The CMM teachers rated students on behavior, GLOs and 3 class objectives on a 7-point scale: Significant Improvement, Moderate Improvement, Slight Improvement, No Change, Slight Decline, Moderate Decline, or Significant Decline. The behaviors rated by the CMM Teachers were:

1. Participating in class
2. Attending class regularly
3. Being attentive in class
4. Behaving well in class
5. Performing academically
6. Coming to class motivated to learn
7. Getting along well with other students

The regular classroom teachers rated the 30-day students on the same 7-point scale on 10 behaviors, GLOs and 2 class objectives (math proficiency and reading proficiency). The behaviors rated were:

1. Turning in homework on time
2. Completing homework to your satisfaction
3. Participating in class
4. Volunteering (e.g. for extra credit or more responsibilities)

5. Attending class regularly
6. Being attentive in class
7. Behaving well in class
8. Performing academically
9. Coming to class motivated to learn
10. Getting along well with other students

Responses to the surveys are discussed below by components. Responses are included if there were at least 10 respondents per group. For open-ended questions, items with two or more respondents with the same response were intended to be included but most respondents had no comments.

### **Selfhood and Learning**

#### Computer Lab for Adults

Evaluation forms were returned by 13 Semester 1 and 12 Semester 2 adults for a total of 25 of the 28 enrollees at Kaunakakai School. Almost all of the students responded Always or Usually to the 6 GLOs. GLOs 1, 2 and 4 had 100%, GLO 3 had 96% and GLOs 5 and 6 had 92%.

Almost all students responded Usually or Sometimes to Project Activities. Project Activities 4 and 5 had 100%, 1 and 2 had 96% and 3 had 80%.

The teacher reported Significant, Moderate or Slight Improvement for all students in behavior, GLOs and class objectives.

#### C2 Ready

The teacher rated all student behaviors as Significant, Moderate or Slight Improvement except 3-No change for 5 behaviors and 2 for 2 behaviors (last two items). For the 6 GLOs and the three class objectives the teacher rated all students as Significant, Moderate or Slight Improvement except one No Change.

Student Evaluations are not discussed because the survey returns did not meet the required minimum of 10.

The teacher reported that the students performed well in behaviors, GLOs and class objectives.

#### Fashion First

No student surveys were returned and although the teacher rated all six enrolled students the results are not reported since it didn't meet the required minimum of 10.

#### Hana Hou Tuesday

Hana Hou Tuesday and Thursday were very well attended. Combined first and second semester sign-in sheets revealed a multiple count of 807 student signatures, 121 parent signatures, 36 staff and family members other than parents' signatures, 106 community member signatures and 158 teacher signatures. Individual participant count yielded a total of 202 students. Purpose for attending indicated on the sign-in sheets included library use, assistance with homework, senior project, science fair, History Day projects, research, Book Fair, Ohana night, assistance with scholarships, Compass Test preparation, Math Day, and tutoring by certified teacher volunteers in math, reading, Spanish and Japanese.

Hana Hou Tuesday and Thursday were well advertised throughout Molokai High School and many volunteers made the program a success. Each session had teachers, seniors, and community members volunteering to help attendees complete their purpose for attending. The Catholic Food Ministry provided food for snacks.

### Machine Patch Quilting

Machine Patch Quilting had evaluation forms returned by 12 Semester 1 and 11 Semester 2 students for a total of 23 students and the teacher rated 17 Semester 1 and 9 Semester 2 students for a total of 26 students of 28 enrollees (17 Semester 1 and 11 Semester 2). All students rated all GLOs as Always, Usually or Sometimes and all rated Project Activities as Usually or Sometimes.

The teacher ratings on behavior, GLOs and class objectives were very positive except for a drop of 6 students in Semester 2. All students were rated Significant, Moderate or Slight Improvement except one student was rated No Change for Attending Class Regularly and Performing Academically and one student was rated Slight Decline for Attending Class Regularly.

### Olelo Hawaii

The results are not reported since the student surveys and the teacher ratings did not meet the required minimum of 10.

### **Skills Maintenance**

#### ACE Reading

Evaluation forms were returned by 12 Semester 1 and 9 Semester 2 students for a total of 21 students of 32 enrollees (12 Semester 1 and 20 Semester 2). The students rated all GLOs Always, Usually or Sometimes. All students rated Project Activities Usually or Sometimes. Three students commented that reading was fun and good.

The teacher rated 12 students in Semester 1 and 18 in Semester 2 for a total of 30 students. The percent of students who made Significant, Moderate or Slight Improvement in behavior ranged from 95.5% to 68.2% as seen below:

1. Participating in class	77.3
2. Attending class regularly	68.2
3. Being attentive in class	77.3
4. Behaving well in class	73.7
5. Performing academically	95.5
6. Coming to class motivated to learn	91.0
7. Getting along well with other students	68.2

The percent of students who made significant, moderate or slight improvement in GLOs ranged from 95.5% (GLOs 3, 4, 5) to 72.7% (GLO 2).

The percent of students who made significant, moderate or slight improvement in class objectives was 100.0% to 95.5% as seen below.

1. Practice reading fluency skills	95.5
2. Learn new sounds or words	100.0
3. Respond to comprehension questions about a story	100.0

Parents, teachers, and project personnel in a written evaluation form distributed at the end of the program made positive comments about the students' increased reading skills, motivation, and confidence. Teacher verbal reports confirmed that skills generalized to the regular classroom setting.

All students improved their reading fluency and/or comprehension. All students with only a few exceptions were able to answer standards-based comprehension questions with a high degree of accuracy (criteria of 80% correct) using a self questioning strategy and graphic organizer.

Parents, teachers, and students participated in a graduation party in May where results of the program were shared. Comments from teachers, parents, and tutors during this meeting showed that stakeholders rated the project highly and valued the students' improvements in both reading and behavior.

### Academic Support

Only 8 student surveys were returned at Kilohana School for the first semester class and no student nor teacher surveys were returned at Molokai High School. The Kilohana School teacher rated all 12 enrolled students significant, moderate or slight improvement for behavior; significant or moderate improvement for GLOs and class objectives which were: 1) apply leveled targeted skills in math and reading, 2) increase homework completion, and 3) apply newly learned study habits while working.

Of the 119 Academic/Skills Support student surveys returned (enrollment 180) at Molokai Middle School, Always, Usually and Sometimes ratings exceeded 98% for GLOs and Usually and Sometimes ratings for project activities were either 98.3% or 97.5%. The teachers rated all 180 enrollees. The percent of student behaviors rated significant, moderate or slight improvement ranged from 96.1% to 80.0% (attendance).



Five of the 7 behavior ratings had 90+%. All of the GLO ratings had 90+% ratings. The class objectives and the percent of improvement ratings were:

- |   |      |
|---|------|
| 1. Complete at least one assignment per class | 99.4 |
| 2. Increase scores in Math Whizz              | 92.8 |
| 3. Increase scores in Achieve 3000            | 88.9 |

The student and teacher ratings were very positive.

Achieve 3000

Of the 19 Achieve 3000 student surveys returned (enrollment 37) at Kaunakakai School, Always, Usually and Sometimes ratings were 100% for GLOs except for the last GLO on technology which had 94.7%. For project activities Usually and Sometimes ratings were 100% for participation and attentiveness in class, while meeting class objective, participation and getting along with other children were 94.7%. The teacher ratings of 35 students for Significant, Moderate or Slight Improvement in behavior ranged from 88.6% to 82.9%. The others were rated No Change and one was Slight Decline for behaving well in class. The GLO improvement ratings ranged from 94.3% to 85.7% with the remainder No Change. All project objectives listed below were rated Significant, Moderate or Slight Improvement.

1. Look back at texts they are reading for answers and clarify meaning.
2. Write meaningful responses to questions about texts they are reading.
3. Consistently pass the reading quizzes on Achieve 3000.

Homework Help

Homework Help was offered year-round at Kaunakakai School for grades K-6. The number of student evaluation forms returned, the enrollment and the number of students rated by teachers for each grade are shown below with Semesters 1 and 2 figures in parentheses.

	<u>Returns</u>	<u>Enrolled</u>	<u>Rated</u>
K	16 (16+0)	42	42 (22+20)
1	26 (12+14)	47	41 (23+18)
2	32 (18+14)	39	38 (21+17)
3	32 (16+16)	31	35 (19+16)
4	20 (12+8)	36	36 (22+14)
5	23 (11+12)	33	29 (18+11)
6	29 (18+11)	32	32 (20+12)
Total	178	260	253

Always, Usually and Sometimes ratings for GLOs ranged from 100.0% to 95.5%. For project activities Usually and Sometimes ratings ranged from 99.0% to 94.0%. The

teacher ratings for Significant, Moderate or Slight Improvement in behavior ranged from 91.4% to 79.0%. Most of the others were rated No Change. The GLO improvement ratings ranged from 85.9% to 81.4% with most of the others No Change. The range of project objectives listed below rated Significant, Moderate or Slight Improvement was 89.6% to 85.0%.

1. Completed math homework assignments
2. Asks for assistance when needed
3. Able to read silently for at least 30 minutes

The student self ratings were higher than the teacher ratings.

### Horticulture

Evaluation forms were returned by 19 Semester 1 students and 13 Semester 2 students at Kilohana School for a total of 32 students of 35 enrollees. All students rated the GLOS as Always, Usually and Sometimes. All students except two rated project activities Usually or Sometimes.

The teacher rated 19 Semester 1 and 15 Semester 2 students for a total of 34 students on behavior, GLOs and class objectives. Most students made slight improvement. The percent of students who made Significant, Moderate or Slight improvement in behavior, GLOs and class objectives are shown below.

1. Participating in class	91.2
2. Attending class regularly	73.5
3. Being attentive in class	88.2
4. Behaving well in class	97.1
5. Performing academically	88.2
6. Coming to class motivated to learn	100.0
7. Getting along well with other students	94.1
1. Responsible for own learning	91.2
2. Understand that human beings need to work together	94.1
3. Demonstrates critical thinking and problem-solving strategies	88.2
4. Recognizes and produces quality performance and products	94.1
5. Communicates effectively	94.1
6. Uses a variety of technologies effectively and ethically	76.5
1. Identify garden tools and uses of the tools	94.1
2. Understand pros and cons of modern organic ag methods	88.2
3. Demonstrate knowledge of local plant varieties	100.0

The ratings for the remaining students were No Change in all categories and Slight Decline for attendance.

### Math Team

Evaluation forms were returned by 7 Semester 1 students and 3 Semester 2 students at Kilohana School for a total of 10 students of 15 enrollees. All students rated the GLOS as Always or Usually except one rated Sometimes. All students rated project activities Usually or Sometimes.

The teacher rated 7 Semester 1 and 7 Semester 2 students for a total of 14 students on behavior, GLOs and class objectives. All students were rated Significant, Moderate or Slight Improvement in behavior, GLOs and class objectives which are listed below.

1. Improve achievement in math
2. Have fun with math and experience it in a competitive arena
3. engage in math activities beyond the classroom

The student and teacher ratings were very positive.

### Math Whizz

Math Whizz at Kaunakakai School was divided into lower and upper classes. Evaluation forms were returned by 35 Semester 1 students and 16 Semester 2 students for a total of 51 lower students of 65 enrollees. The percent of student responses for the GLOs as Always, Usually or Sometimes ranged from 94.1% to 90.2%. Students (96.1%) rated project activities Usually or Sometimes.

Evaluation forms were returned by 17 Semester 1 students and 9 Semester 2 students for a total of 26 upper students of 28 enrollees. The percent of student responses for the GLOs as Always, Usually or Sometimes ranged from 100.0% to 84.6%. All students rated project activities Usually or Sometimes except one each for meeting class objectives and getting along well with other students.

The teacher rated 17 Semester 1 and 11 Semester 2 students for a total of 28 students on behavior, GLOs and class objectives. Nineteen (19) students made significant improvement in all categories. Percent of students rated Significant, Moderate or Slight Improvement in behavior, GLOs and class objectives (listed below) was 89.3%.

1. Demonstrate increased "math age" according to site
2. Demonstrate significant "gains/progression" in math strands
3. Demonstrate positive attitude toward math

Student and teacher ratings were generally positive.

### Media and Technology

Student and teacher surveys did not meet the required minimum of 10.

### Science Inquiry

Evaluation forms were returned by 18 Semester 1 students and 28 Semester 2 students at Kaunakakai School for a total of 46 students of 63 enrollees. The student ratings for GLOS as Always, Usually or Sometimes ranged from 97.8% to 93.5%. The student ratings for project activities as Usually or Sometimes ranged from 97.8% to 87.0%.

The teacher rated 32 Semester 1 and 30 Semester 2 students for a total of 62 students. All students were rated Significant, Moderate or Slight Improvement in behavior, GLOs and class objectives which are listed below.

1. Demonstrate knowledge of the "greenhouse" effect
2. Demonstrate knowledge of decomposition
3. Demonstrate molecular structure of C, H, O<sub>2</sub>, N

The student and teacher responses were very positive.

#### Tutor Support and Skills Support

Tutor and Skills Support at Maunaloa School was offered in Semesters 1 and 2 for grades 3-4 and 5-6 and Semester 2 for grades K-2. For grades K-2 all 28 enrollees returned student surveys and were rated by the teacher. The percent of student ratings of Always, Usually, or Sometimes on GLOs were:

- |  |       |
|--|-------|
| 1. I am responsible for my own learning                      | 100.0 |
| 2. I understand that human beings must work together         | 100.0 |
| 3. I use critical thinking and problem-solving strategies    | 92.9  |
| 4. I recognize and produce quality performance and products  | 82.1  |
| 5. I communicate effectively                                 | 82.1  |
| 6. I use a variety of technologies effectively and ethically | 100.0 |

The student self-ratings of Usually or Sometimes for Project Activities were:

- |   |       |
|---|-------|
| 1. I met the class objectives           | 89.3  |
| 2. I participate in class               | 100.0 |
| 3. I pay attention in class             | 82.1  |
| 4. I behave well in class               | 82.1  |
| 5. I get along well with other students | 82.1  |

The percent of Significant, Moderate, or Slight Improvement teacher ratings for behavior, GLOs and class objectives are shown below.

- |   |       |
|---|-------|
| 1. Participating in class                 | 85.7  |
| 2. Attending class regularly              | 67.9  |
| 3. Being attentive in class               | 85.7  |
| 4. Behaving well in class                 | 85.7  |
| 5. Performing academically                | 92.9  |
| 6. Coming to class motivated to learn     | 100.0 |
| 7. Getting along well with other students | 100.0 |

1. Responsible for own learning	92.9
2. Understand that human beings need to work together	64.2
3. Demonstrates critical thinking and problem-solving strategies	64.3
4. Recognizes and produces quality performance and products	82.1
5. Communicates effectively	82.1
6. Uses a variety of technologies effectively and ethically	100.0
1. Apply leveled/targeted skills in math and reading	78.6
2. increase homework completion	100.0
3. apply creative skills learned in enrichment activities	100.0

The ratings were variable with at least one 100.0% in each category for both students and teacher.

For grades 3-6, of 65 enrollees, 62 student and 63 teacher ratings were made. The percent of student ratings of Always, Usually, or Sometimes on GLOs ranged from 100% to 93.5%. The student self-ratings of Usually and Sometimes for Project Activities were:

1. I met the class objectives	89.3
2. I participate in class	100.0
3. I pay attention in class	82.1
4. I behave well in class	82.1
5. I get along well with other students	82.1

The percent of Significant, Moderate, or Slight Improvement (I) and Slight, Moderate or Significant Decline (D) teacher ratings for behavior, GLOs and class objectives are shown below.

	<u>I</u>	<u>D</u>
1. Participating in class	79.4	18.5
2. Attending class regularly	77.8	18.9
3. Being attentive in class	82.5	12.7
4. Behaving well in class	82.5	9.5
5. Performing academically	74.6	7.4
6. Coming to class motivated to learn	82.5	12.3
7. Getting along well with other students	87.3	5.8
1. Responsible for own learning	81.0	10.6
2. Understand that human beings need to work together	79.3	6.3
3. Demonstrates critical thinking and problem-solving strategies	88.8	7.4
4. Recognizes and produces quality performance and products	77.7	7.4
5. Communicates effectively	84.1	6.4
6. Uses a variety of technologies effectively and ethically	90.6	7.4
1. Apply leveled/targeted skills in math and reading	88.9	4.8

2. increase homework completion	82.6	9.0
3. apply creative skills learned in enrichment activities	82.5	7.4

The teacher ratings were average with most in the 80%+ range for improvement. Declines were fairly high with 4 behavior and 1 GLO in the 10%+ range. These ratings were much lower than the student self ratings.

### Tutoring

Tutoring was offered year-round at Kilohana School for grade levels K, 1, 2/3, 4/5, 6. The number of student evaluation forms returned, the enrollment and the number of students rated by teachers for each grade are shown below with Semesters 1 and 2 figures in parentheses.

	<u>Returns</u>	<u>Enrolled</u>	<u>Rated</u>
K	9 (7+2)	10	9 (7+2)
1	8 (4+4)	8	8 (4+4)
2/3	23 (13+10)	28	27 (15+12)
4/5	27 (17+10)	29	26 (17+9)
6	17 (11+6)	17	14 (8+6)
Total	84	92	84

Always, Usually and Sometimes ratings were 100.0% for all GLOs. For project activities Usually and Sometimes ratings ranged from 100.0% to 98.5% The teacher ratings for Significant, Moderate or Slight Improvement in behavior ranged from 94.1% to 73.3% (being attentive in class). Most of the others were rated No Change. The GLO improvement ratings ranged from 96.1% to 91.6% with most of the others No Change. The percent of project objectives listed below rated Significant, Moderate or Slight Improvement were:

1. Apply leveled/targeted skills in math and reading	100.0
2. Increase homework completion	84.0
3. Apply newly learned study habits while working	95.5

The student self-ratings were higher than the teacher ratings.

### Tutorsauras

Student and teacher surveys were completed for the 11 enrollees in the Semester 1 class. Percent of student responses for GLOs as Always Usually or Sometimes ranged from 100.0% for 4 GLOs to 90.9% for the remaining 2 GLOs. The percent of student responses for project activities as Usually or Sometimes ranged from 100.0% for 3 of the 5 activities to 90.9% for the remaining 2 activities.

The teacher ratings were 100.0% Significant, Moderate or Slight Improvement except for attendance which had 3 No Change and 1 Moderate Decline. Most of the student improvement was rated Significant for behavior, GLOs and class objectives listed below.

1. Enhanced vocabulary development via creative movement
2. Enhanced reading comprehension via drama
3. A positive attitude towards reading

The student and teacher responses were very positive.

### Yearbook

Evaluation forms were returned by 5 Semester 1 students and 5 Semester 2 students at Molokai Middle School (MMS) for a total of 10 students of 15 enrollees. All students rated Always or Usually for GLOs and Usually or Sometimes for project activities.

The teacher rated 7 Semester 1 and 8 Semester 2 students for a total of 15 students. All students were rated Significant, Moderate or Slight improvement in behavior, GLOs and class objectives (listed below) except one was Significant throughout and one was Slight Decline for 3 behaviors: participation, attendance and motivation.

1. Create a quality product and reach task completion
2. Write in a variety of contexts
3. Be a community contributor via school yearbook

The student and teacher surveys were generally positive. The class ended early in first semester due to conflicting sports events. Second semester students successfully planned and created a yearbook for MMS.

## **STEM Mind-Building**

### Advanced Robotics

Advanced Robotics was a Semester 2 class at Kaunakakai and Kilohana Schools with only 6 student evaluation forms returned from an enrollment of 18 for Kaunakakai School and none for Kilohana School. The small enrollment of 3 at Kilohana School prompted an early end to the class.

The Kaunakakai School teacher rated 18 students on behavior, GLOs and class objectives. Sixteen (16) students were rated as making significant improvement for all three categories and the remaining two made no change.

### Beginner Robotics

Beginner Robotics was a Semester 2 class at Kaunakakai and Kualapuu Schools with only 9 enrollees at each school.

## Bridges

Bridges at Molokai Middle School had 4 enrollees in Semester 1 and 11 enrollees in Semester 2 but only 4 student surveys were returned. The teacher rated 4 students in Semester 1 and 10 in Semester 2 for a total of 14 students. The percent of Significant, Moderate or Slight Improvement ratings for behavior, GLOs and class objectives are shown below.

1. Participating in class	78.5
2. Attending class regularly	78.6
3. Being attentive in class	85.7
4. Behaving well in class	85.7
5. Performing academically	85.6
6. Coming to class motivated to learn	92.8
7. Getting along well with other students	78.5
1. Responsible for own learning	85.7
2. Understand that human beings need to work together	78.6
3. Demonstrates critical thinking and problem-solving strategies	96.8
4. Recognizes and produces quality performance and products	92.8
5. Communicates effectively	92.9
6. Uses a variety of technologies effectively and ethically	92.9
1. Promote teamwork, technical growth and communication skills	92.8
2. Expand math concepts beyond the classroom	92.8
3. Inspire to pursue a career in engineering	78.6

The range of percents for behavior, GLOs and class objectives was about the same for the three categories, 93% to 79%.

## CAD

Computer-Aided Design (CAD) was a year course at Kaunakakai School. Student evaluation forms were returned by 9 Semester 1 and 4 Semester 2 students for a total of 13 students of 16 enrollees (9 Semester 1 and 7 Semester 2). All students rated themselves Always or Usually for the 6 GLOs and the 5 project activities.

The teacher rated 9 Semester 1 and 7 Semester 2 students for a total of 16 students on behavior, GLOs and class objectives. All students were rated as making Significant, Moderate, or Slight Improvement in all three categories. Class objectives were: 1) create 3D models using Google Sketch Up program, 2) work collaboratively, and 3) understand basic geometric concepts and coordinates on 3 axes.

Students and teacher rated the class very positively.

## FLL Competition Robotics



First Lego League (FLL) Competition Robotics was a Semester 1 class at Kaunakakai and Kualapuu Schools. Kualapuu School had 8 students enrolled and Molokai Middle School (held at Kaunakakai School) had 6 enrolled. Student evaluation forms were returned by 12 Kaunakakai School students, 6 each from the boys' class and the girls' class. All 12 students rated the GLOs as Always or Usually and the Project Activities as Usually.

The two teachers rated 13 students on behavior, GLOs and class objectives. All except one were rated as making significant or moderate improvement in all three categories. The one was rated significant decline in all three categories. The class objectives were: 1) design, modify and apply technology to solve a problem, 2) explore career options in robotics, and 3) understand that science, technology and society are interrelated.

The results were very positive for both students and teachers except the one with Significant Decline ratings.

#### Jr. Robotics

Jr. Robotics was a Semester 2 class at Kaunakakai School with only 8 student evaluation forms returned. The teacher rated 16 students Significant, Moderate or Slight Improvement in behavior except 3 No Change (performing academically) and 5 Slight Decline (behaving well in class). All students were rated Significant or Moderate Improvement on 5 GLOs and for communicates effectively 4 (25.0%) Slight Improvement and 3 (18.8%) No Change. All made Significant, Moderate or Slight Improvement on class objectives: 1) use scientific process skills, 2) understands that science, technology and society are interrelated, and 3) use science process skills to build and modify a lego robot.

#### Vex Robotics

Vex Robotics was a Semester 1 course at Molokai High School. No student or teacher evaluation forms were returned for the 15 enrollees, but the teacher made the following comments.

During the entire competition season, students learned more than how to build robots. They also learned about building critical life skills such as teamwork, problem solving, time management, and effective communication. VEX allowed students to raise the bar and expectations through state and international competitions. They catalyzed interest in STEM career paths preparing for a work force for the 21st century. They were able to make abstract concepts concrete, making learning relevant and engaging and they learned that innovation is needed to solve global issues. Students also learned about "gracious professionalism," helping and collaborating on a global scale and respecting the time and knowledge of others.

## **Strength-Based Community Building**

### Art

Art was a Semester 1 course at Molokai Middle School (MMS) and a year course at Kaunakakai School. Student and teacher ratings at MMS were less than 10 so are not discussed. Student evaluation forms were returned by 16 Semester 1 and 8 Semester 2 students for a total of 24 students of 47 enrollees (28 Semester 1 and 19 Semester 2) at Kaunakakai School. All students rated the GLOs Always, Usually or Sometimes. All students also rated the Project Activities Usually or Sometimes.

The teacher rated 28 Semester 1 and 16 Semester 2 students for a total of 44 students on behavior, GLOs and class objectives. All students made Significant, Moderate or Slight Improvement (almost all Significant Improvement) in behavior except 1 had Significant Decline in attendance and coming to class motivated to learn. Almost all students made Significant Improvement (two Moderate or Slight) in GLOs. Similarly, almost all students made Significant Improvement (two Moderate) in class objectives:

1. Learn to use variety of tools, media and techniques
2. Apply elements of line, color, shape, composition, pattern and value
3. Appreciate the art expression of others

The student and teacher results were very positive.

### Ceramics

Ceramics was a year course at Kualapuu School and a Semester 2 class at Molokai High School (MHS). Student and teacher ratings at MHS were less than 10 so are not discussed. Student evaluation forms were returned by 5 Semester 1 and 6 Semester 2 students for a total of 11 students of 34 enrollees (24 Semester 1 and 10 Semester 2) at Kualapuu School. All students rated the GLOs Always, Usually or Sometimes, most of them Always. All students also rated the Project Activities Usually or Sometimes, most of them Usually.

The teacher rated 24 Semester 1 and 7 Semester 2 students for a total of 31 students on behavior, GLOs and class objectives. All students made Significant, Moderate or Slight Improvement (almost all significant improvement) in behavior, GLOs and class objectives except 1 or 2 No Change. The class objectives were:

1. Develop skills working with clay materials and techniques
2. Practice cooperation working with others
3. Practice communication and expression through art making

The student and teacher results were very positive.

## Chess

Chess was a Semester 1 class at Molokai Middle School. No teacher ratings were made and student survey forms returned were less than 10.

## Dance Fitness

Dance Fitness was a Semester 1 class at Kaunakakai School. Only 6 adult student forms were returned and the teacher rated all 10 enrollees. Nine (9) students were rated Significant Improvement and one was rated Moderate Improvement for behavior, GLOs and class objectives:

1. Understand the need to advocate for personal, family and community health
2. Participate regularly in physical activity
3. Learn dance routines designed to support physical fitness

Teacher ratings were very positive.

## Dancercise

Dancercise was a Semester 2 class at Kilohana School. Ten (10) student evaluation forms were returned and the teacher rated all 24 enrollees. All students rated GLOs Always or Usually (more Always) and Project Activities Usually or Sometimes (more Usually). The percent of Significant, Moderate, or Slight Improvement and Slight, Moderate or Significant Decline teacher ratings for behavior, GLOs and class objectives are shown below.

	<u>I</u>	<u>D</u>
1. Participating in class	86.4	9.1
2. Attending class regularly	27.2	68.1
3. Being attentive in class	72.7	4.5
4. Behaving well in class	77.3	9.0
5. Performing academically	81.8	--
6. Coming to class motivated to learn	81.8	--
7. Getting along well with other students	81.8	4.5
1. Responsible for own learning	81.8	4.5
2. Understand that human beings need to work together	81.8	--
3. Demonstrates critical thinking and problem-solving strategies	81.8	4.5
4. Recognizes and produces quality performance and products	81.8	--
5. Communicates effectively	81.8	--
6. Uses a variety of technologies effectively and ethically	81.8	4.5
1. Learn dance movements	63.5	4.5
2. Learn to monitor heart rate	31.8	32.0
3. create a personal health goal	22.7	54.6

Student responses were very positive but teacher ratings were much lower.

### Drawing & Painting

Drawing & Painting was a Semester 1 course at Kilohana School. Student evaluation forms were returned by all 22 enrollees and the teacher rated 17 students. All students rated the GLOs Always, Usually or Sometimes (mostly Always) and the Project Activities Usually or Sometimes (mostly Usually).

All teacher ratings for behavior and GLOs were Significant, Moderate or Slight Improvement, and for class objectives were Significant or Moderate Improvement. The class objectives were:

1. Use a variety of art tools, media and techniques
2. Create art using the elements of line, color, shape, and composition
3. Express emotions and ideas using a variety of art techniques

Student and teacher ratings were very positive.

### Instrumental Music

Instrumental Music was comprised of year classes in Violin at Kaunakakai, Kilohana and Kualapuu Schools, and Brass and Woodwind at Kaunakakai School. Student evaluation forms returned by semesters and year, and enrollment (by semesters in parentheses) were as follows:

	<u>Semester 1</u>	<u>Semester 2</u>	<u>Year</u>	<u>Enrollment</u>
Kaunakakai	11	18	29	47 (24+23)
Kilohana	17	8	25	26 (17+9)
Kualapuu	19	12	31	43 (23+20)
Total	47	38	85	116 (64+52)

The student ratings of Always, Usually or Sometimes for the GLOs ranged from 100.0% to 96.5%. The student ratings of Usually or Sometimes for Project Activities listed below ranged from 98.8% to 95.3%.

1. Identify and play rhythmic values - quarter, half, whole note, etc.
2. Read notes for and play open E and open A
3. Identify major parts, demonstrate correct bow grip and play up and down bow markings

## Kempo

Kempo was a Semester 1 course at Kilohana School. Student evaluation forms were returned by 11 students and the teacher rated all 11 enrollees. The percent of students who rated Always or Usually in GLOs was 81.8%. There were no Sometimes ratings and 18.2% of the students rated the GLOs as Rarely. The percents for Project Activities were similar: 81.8% Always or Usually and 18.2% Rarely.

The teacher rated most students as making Moderate or Slight Improvement in behavior (100.0% to 54.6%) except class participation had 18.2% making Slight or Significant Decline and attendance had 45.5% with No Change or Slight, Moderate or Significant Decline. All students were rated Moderate Improvement in GLOs except for GLO 1 which had 7 Moderate and 4 Slight Improvement.

Most students made Moderate Improvement (none made Significant Improvement) in class objectives:

1. Demonstrate warm-up movements
2. Perform movement sequences
3. Demonstrate proper movement form

## Open Computer Lab

Open Computer Lab was available to students, school staff and the community at Maunaloa School during Semester 2. The lab was used for internet explorations, word processing, and computer skills support. Multiple count sign-in sheets had 287 students and 11 community members. According to the teacher the students who frequented the computer lab not only increased their computer skills, but they also were able to connect their classroom assignments via internet research.

## School of Rock

School of Rock was a year course at Kaunakakai School for elementary, middle and high school students. Student evaluation forms were returned by 27 Semester 1 and 12 Semester 2 students for a total of 39 students of 71 enrollees (43 Semester 1 and 28 Semester 2). The percent of student ratings of Always, Usually or Sometimes for GLOs ranged from 100.0% to 97.4% (1 Rarely for effective communication). All students rated Project Activities Usually or Sometimes.

The teacher rated 43 Semester 1 and 26 Semester 2 students for a total of 69 students on behavior, GLOs and class objectives. The range of student percents for 7 behaviors for Significant, Moderate or Slight Improvement was 95.5% (3 in the 90+% and 3 in the 80+%) to 68.2% (attendance). The percents for GLOs were 82+% except GLO 2 66.6% and the percents for class objectives were 84+%. The class objectives were:

1. Learn to play an instrument and/or sing
2. Perform at least one song
3. Form musical groups and perform in public

Results were generally positive.

### Silk Screen

Student and teacher ratings were less than the minimum requirement of 10.

### Tahitian Beginner/Advanced

Tahitian Exercise was a year course at Kaunakakai School. Student evaluation forms were returned by 12 Semester 1 and 29 Semester 2 students for a total of 41 of 58 enrollees (26 Semester 1 and 32 Semester 2). The percent of students who rated the GLOs Always, Usually or Sometimes was 100.0% except for GLO 1 which was 95.1%. All students rated Project Activities Usually or Sometimes.

The teacher rated 24 Semester 1 and 30 Semester 2 students for a total of 54 students on behavior, GLOs and class objectives. All students made Significant or Moderate Improvement (mostly Significant) in behavior except 2 made Slight Improvement in participation and 2 in attendance. All students made Significant or Moderate Improvement (mostly Significant) in GLOs and class objectives:

1. Demonstrate knowledge of warm-up exercises
2. Perform dance movements with music
3. Attend public performances

The results were very positive.

### Ukulele

Ukulele was a year course at Molokai Middle School. Evaluation forms were returned by 6 students in each semester for a total of 12 of 15 enrollees (7 Semester 1 and 8 Semester 2). All students rated GLOs Always, Usually or Sometimes (mostly Always) and Project Activities Usually or Sometimes (mostly Usually). The teacher did not rate any student in Semester 1 (teacher left State so class ended early) and less than 10 were rated in Semester 2.

Student responses were very positive.

### **Parent Evaluation**

Parents were asked to respond to a survey on GLOs, helpfulness of the class and adequacy of the class. The number of parent returns by schools is listed below.

Kaunakakai (KAU)	169
Kilohana (KIL)	23
Kualapuu (KUA)	14
Maunaloa (MAU)	39
Molokai Middle (MMS)	75
Molokai High (MHS)	8
Total	328

The percents for agreeing or strongly agreeing with the GLOs at 5 schools are shown below. MHS had less than 10 respondents. The highest percents at each school are bolded. Kilohana had the highest percents with 4 90+% and 2 80+%. MMS had 2 90+% and 4 80+% and Kualapuu had 2 90+%, 1 80+% and 3 70+%. Kaunakakai had no 90+%, 1 87.0%, 1 76.2%, 1 68.1% and 3 50+%. Maunaloa had the lowest percents, all 30+%.

GLOs	KAU	KIL	KUA	MAU	MMS
1	76.2	87.0	<b>92.9</b>	35.9	89.3
2	53.7	<b>91.3</b>	<b>92.9</b>	35.9	94.7
3	<b>87.0</b>	<b>91.3</b>	85.7	30.8	85.3
4	68.1	<b>91.3</b>	71.4	33.3	<b>98.7</b>
5	51.2	87.0	78.6	30.8	85.3
6	58.6	<b>91.3</b>	78.6	<b>38.5</b>	89.3

Yes responses for helpfulness of the class at the 5 schools are shown below. Kualapuu had the highest percents with 2 100% and 3 70+%, followed by MMS with 3 90+%, 1 86.7% and 1 72.0%. Kilohana had 1 90+%, 2 80+% and 2 70+%. The highest percent for Maunaloa was 82.0%, followed by 1 70+%, 2 60+% and 1 50+%. Kaunakakai School had 3 70+%, 1 60+% and 1 50+%.

HELPFULLNESS	KAU	KIL	KUA	MAU	MMS
Math	79.6	78.2	78.6	<b>82.0</b>	<b>97.3</b>
Reading	56.2	87.0	78.6	69.2	86.7
Science	60.3	70.0	71.4	56.4	72.0
Personal Dev	75.1	<b>91.3</b>	<b>100.0</b>	71.8	92.0
Importance of Ed	<b>79.9</b>	82.6	<b>100.0</b>	64.1	90.7

The percent of parents who rated adequacy of the class a 4 or 5 on a 5-point scale for the 5 schools is shown below. Kilohana had the highest percents with 3 100.0% and 2 95.7%. Kualapuu had 1 85.7% and 4 70+%. MMS had 2 70+% and 3 60+%. Kaunakakai had 1 97.0%, 1 81.7%, 2 70+% and 1 55.0%. Maunaloa had 1 76.9%, 2 60+%, 1 59.0% and 1 43.6%.

ADEQUACY	KAU	KIL	KUA	MAU	MMS
Content	81.7	95.7	71.4	<b>76.9</b>	69.3
Teaching	<b>97.0</b>	<b>100.0</b>	71.4	59.0	68.0
Pacing	78.6	95.7	78.6	64.1	69.3
Environment	55.0	<b>100.0</b>	78.6	43.6	72.0
Interaction	78.1	<b>100.0</b>	<b>85.7</b>	66.7	<b>73.3</b>

Generally, parent responses were positive.

### Regular Teacher Evaluation of CMM Students

**Regular classroom teachers** were asked about the effect of the project on their students. The number of teachers and the number of regular project students (attended 30 or more days) rated are shown below by schools.

<u>School</u>	<u>Number of Teachers</u>	<u>Number of Students</u>
Kaunakakai	14	150
Kilohana	7	40
Kualapuu	1	8
Maunaloa	1	27
Molokai Middle	1	84
Molokai High	1	10
Total	25	319

Three hundred nineteen (319) regular project students were rated by 25 regular classroom teachers. The predominance of regular attendees was 150 at Kaunakakai School where they were rated by 14 classroom teachers on behavior, GLO and class objectives (math and reading proficiency). The tables below show the changes for all schools in the project.



**Kaunakakai School N=150**

<b>To what extent has the student changed his/her behavior in terms of items listed below.</b>		<b>Do Not Need to Improve</b>	<b>Significant Improvement</b>	<b>Moderate Improvement</b>	<b>Slight Improvement</b>	<b>No Change</b>	<b>Slight Decline</b>	<b>Moderate Decline</b>	<b>Significant Decline</b>
1	Turning in homework on time	13	60	26	24	24	2	1	
2	Completing homework to your satisfaction	12	62	30	24	20	1	1	
3	Participating in class	12	51	29	36	21	1		
4	Volunteering (e.g. for extra credit or more responsibilities)	11	50	21	24	43	1		
5	Attending class regularly	36	56	19	8	30	1		
6	Being attentive in class	16	50	24	33	26	1		
7	Behaving well in class	22	52	20	29	26	1		
8	Performing academically	11	32	54	27	25	1		
9	Coming to class motivated to learn	15	50	30	26	28	1		
10	Getting along well with other students	15	51	23	31	28	2		
11	Meeting the GLOs								
a	Responsible for own learning	14	53	26	35	21	1		
b	Understanding that human beings need to work together	19	53	22	31	24	1		
c	Demonstrates critical thinking and problem-solving strategies	11	52	30	26	29	1		
d	Recognizes and produces quality performance and products	14	54	22	26	34			
e	Communicates effectively	13	53	21	32	31			
f	Uses a variety of technologies effectively and ethically	15	54	22	24	30	4		1
12	Meeting the class objectives								
a	Math proficiency	8	70	25	34	13			
b	Reading proficiency	8	63	26	42	11			

**Kilohana School N=40**

<b>To what extent has the student changed his/her behavior in terms of items listed below.</b>		<b>Do Not Need to Improve</b>	<b>Significant Improvement</b>	<b>Moderate Improvement</b>	<b>Slight Improvement</b>	<b>No Change</b>	<b>Slight Decline</b>	<b>Moderate Decline</b>	<b>Significant Decline</b>
1	Turning in homework on time	4	17	5	2	11		1	
2	Completing homework to your satisfaction	6	16	3	4	10		1	
3	Participating in class	3	14	9	4	10			
4	Volunteering (e.g. for extra credit or more responsibilities)	4	10	5	4	17			
5	Attending class regularly	11	16	4	0	9			
6	Being attentive in class	3	15	8	4	10			
7	Behaving well in class	5	10	9	7	9			
8	Performing academically	5	16	7	3	9			
9	Coming to class motivated to learn	4	14	8	5	9			
10	Getting along well with other students	5	12	10	3	10			
11	<b>Meeting the GLOs</b>								
a	Responsible for own learning	3	14	12	1	10			
b	Understanding that human beings need to work together	5	11	9	4	11			
c	Demonstrates critical thinking and problem-solving strategies	4	12	12	4	8			
d	Recognizes and produces quality performance and products	5	10	8	6	11			
e	Communicates effectively	4	12	12	4	8			
f	Uses a variety of technologies effectively and ethically	4	18	6	1	11			
12	<b>Meeting the class objectives</b>								
a	Math proficiency	4	17	13	4	2			
b	Reading proficiency	4	18	8	8	2			

**Kualapuu School N=8**

<b>To what extent has the student changed his/her behavior in terms of items listed below.</b>		<b>Do Not Need to Improve</b>	<b>Significant Improvement</b>	<b>Moderate Improvement</b>	<b>Slight Improvement</b>	<b>No Change</b>	<b>Slight Decline</b>	<b>Moderate Decline</b>	<b>Significant Decline</b>
1	Turning in homework on time	2	2	4					
2	Completing homework to your satisfaction	2	2	4					
3	Participating in class	2	6						
4	Volunteering (e.g. for extra credit or more responsibilities)	2	6						
5	Attending class regularly	4	1	3					
6	Being attentive in class	2	3						
7	Behaving well in class	3	6	4					
8	Performing academically	2	1	2	1				
9	Coming to class motivated to learn	2	3	3					
10	Getting along well with other students	4	3	1					
11	Meeting the GLOs								
3a	Responsible for own learning		2	6					
b	Understanding that human beings need to work together		4	4					
c	Demonstrates critical thinking and problem-solving strategies		3	4	1				
d	Recognizes and produces quality performance and products		2	6					
e	Communicates effectively		2	6					
f	Uses a variety of technologies effectively and ethically		2	6					
12	Meeting the class objectives								
a	Math proficiency		3	3	2				
b	Reading proficiency		2	3	2	1			

**Maunaloa School N=27**

<b>To what extent has the student changed his/her behavior in terms of items listed below.</b>		<b>Do Not Need to Improve</b>	<b>Significant Improvement</b>	<b>Moderate Improvement</b>	<b>Slight Improvement</b>	<b>No Change</b>	<b>Slight Decline</b>	<b>Moderate Decline</b>	<b>Significant Decline</b>
1	Turning in homework on time	3	13	6	3	1			1
2	Completing homework to your satisfaction	3	11	6	3	1	3		
3	Participating in class	3	13	4	2	1	2	1	1
4	Volunteering (e.g. for extra credit or more responsibilities)	2	5	2	4	13		1	
5	Attending class regularly	3	12	8	1			1	2
6	Being attentive in class	2	14	4	3	1	3		
7	Behaving well in class	5	12	6	2	1		1	
8	Performing academically	3	9	8	4	1		2	
9	Coming to class motivated to learn	3	13	4	3	1	3		
10	Getting along well with other students	5	10	7	4			1	
11	Meeting the GLOs								
a	Responsible for own learning	3	11	7	3		2	1	
b	Understanding that human beings need to work together	3	16	2	5	1			
c	Demonstrates critical thinking and problem-solving strategies	1	6	8	6	2	4		
d	Recognizes and produces quality performance and products	2	5	10	6		3	1	
e	Communicates effectively	2	6	10	5	2	2		
f	Uses a variety of technologies effectively and ethically	2	12	6	6		1		
12	Meeting the class objectives								
a	Math proficiency		9	11	6	1			
b	Reading proficiency		15	8	4				

**Molokai Middle School N=84**

<b>To what extent has the student changed his/her behavior in terms of items listed below.</b>		<b>Do Not Need to Improve</b>	<b>Significant Improvement</b>	<b>Moderate Improvement</b>	<b>Slight Improvement</b>	<b>No Change</b>	<b>Slight Decline</b>	<b>Moderate Decline</b>	<b>Significant Decline</b>
1	Turning in homework on time	17	10	13	19	24	1		
2	Completing homework to your satisfaction	17	10	13	23	19	2		
3	Participating in class	16	10	15	23	19	1		
4	Volunteering (e.g. for extra credit or more responsibilities)	16	9	15	23	20	1		
5	Attending class regularly	16	9	17	22	19	1		
6	Being attentive in class	16	9	18	21	19	1		
7	Behaving well in class	17	8	16	23	19	1		
8	Performing academically	17	8	17	27	14	1		
9	Coming to class motivated to learn	16	9	17	25	16	1		
10	Getting along well with other students	16	9	12	30	16	1		
11	Meeting the GLOs								
a	Responsible for own learning	16	9	14	27	16	2		
b	Understanding that human beings need to work together	16	10	13	27	13	5		
c	Demonstrates critical thinking and problem-solving strategies	17	9	13	29	11	5		
d	Recognizes and produces quality performance and products	17	9	13	29	11	6		
e	Communicates effectively	17	9	15	26	12	5		
f	Uses a variety of technologies effectively and ethically	16	10	16	26	11	5		
12	Meeting the class objectives								
a	Math proficiency	16	9	16	27	11	5		
b	Reading proficiency	16	7	19	27	10	5		

**Molokai High School N=10**

<b>To what extent has the student changed his/her behavior in terms of items listed below.</b>		<b>Do Not Need to Improve</b>	<b>Significant Improvement</b>	<b>Moderate Improvement</b>	<b>Slight Improvement</b>	<b>No Change</b>	<b>Slight Decline</b>	<b>Moderate Decline</b>	<b>Significant Decline</b>
1	Turning in homework on time		8	2					
2	Completing homework to your satisfaction		8	2					
3	Participating in class		8	2					
4	Volunteering (e.g. for extra credit or more responsibilities)		9	1					
5	Attending class regularly		9	1					
6	Being attentive in class		9	1					
7	Behaving well in class		9	1					
8	Performing academically		10						
9	Coming to class motivated to learn		6	4					
10	Getting along well with other students		6	4					
11	Meeting the GLOs								
a	Responsible for own learning		10						
b	Understanding that human beings need to work together		10						
c	Demonstrates critical thinking and problem-solving strategies		10						
d	Recognizes and produces quality performance and products		6	4					
e	Communicates effectively		6	4					
f	Uses a variety of technologies effectively and ethically		6	4					
12	Meeting the class objectives								
a	Math proficiency		6	4					
b	Reading proficiency		10						

At Kaunakakai School most of the students made significant improvement followed by moderate or slight improvement, then no change.

At Kilohana School most of the students made significant improvement followed by no change (except for class objectives), followed by moderate and slight improvement.

At Kualapuu School most of the students made significant or moderate improvement.

At Maunaloa School most of the students made significant improvement, followed by moderate and slight improvement, no change and slight decline. Nearly all students improved on class objectives.

At Molokai Middle School about a fifth of the students did not need to improve. Most of the rest of the students made slight improvement, followed by moderate improvement, no change and significant improvement.

At Molokai High School all students made significant improvement followed by moderate improvement.

Generally, regular teachers rated project students as making improvement.

### **Findings by Component Objectives**

The first four years of the project address the formative assessment and evaluation objectives, while the fifth and final year addresses all objectives, including the summative evaluation objectives. The objectives are listed in Appendix B.

The formative objectives by components are discussed below as met or unmet.

#### **Selfhood and Learning** (Computer Lab for Adults, C2Ready, Fashion First, Hana Hou Tuesday, Machine Patch Quilting, Olelo Hawaii)

1. Activities will accommodate 160 participants each year. (duplicated count)

Unmet; 87 participants

2. 80% of the participants will complete one or more of the activities.

Unmet; 66.7% (1,096 participants). Hana Hou Tuesday was not designed for completion of course work, but there were 1,122 sign-ins.

#### **Skills Maintenance** (ACE Reading, Academic Support, Achieve 3000, Homework Help, Horticulture, Math Team, Math Whizz, Media & Technology, Science Inquiry, Skills Support, Tutor Support, Tutoring, Tutorsauras, Yearbook)

1. Activities will accommodate 360 participants each year. (duplicated count)

Met; 1,315 participants

2. 50% of the participants will complete one or more of the activities.

Met; 79.6% (1,047 participants)

**STEM Mind-Building** (Advanced Robotics, Beginner Robotics, Bridges, CAD, FLL Robotics, Jr. Robotics, Vex Robotics)

1. Activities will accommodate 165 students and 24 teachers per year. (duplicated count)

Met; 229 students

Unmet; 0 teachers

2. 80% of the participants will complete one or more of the activities.

Met; 89.7% (206 participants)

**Strength-Based Community Building** (Art, Ceramics, Chess, Dance Fitness, Dancercise, Drawing & Painting, Instrumental Music (Brass, Violin, Woodwind), Kempo, Open Computer Lab, School of Rock, Silk Screen, Tahitian (Beginner & Advanced), Ukulele)

1. Activities will accommodate 250 participants each year. (duplicated count)

Met; 887 participants

2. 90% of the participants will complete one or more of the activities.

Unmet; 72.9% (647 participants)

## **SUMMER PROGRAM**

The Year 4 Summer Enrichment Program consisted of:

- 1) Skills Maintenance (SM) and Strength-Based Community-Building (SBCB) at Kaunakakai Elementary School and Kilohana Elementary School June 6-30, 2011, and Maunaloa Elementary School June 13 - July 8, 2011;
- 2) Kamali`i Korner at Kaunakakai Elementary School July 5-15, 2011;
- 3) Drama at Kaunakakai Elementary School July 18-22, 2011;
- 4) STEM Moonbots at Kaunakakai Elementary School June 1-15, 2011.

The school programs are described below.

### **Kaunakakai Elementary School**

The Kaunakakai School SM and SBCB programs were held four days a week for four weeks from June 6 - 30, 2011 from 7:15 am - 12:30 pm for 123 students grouped by grades 1-6. Five paraprofessional tutors (PPTs) were hired to support student learning in the classroom and to help with supervision during non-instructional time (breakfast and lunch, recess, before and after school). All students had breakfast and lunch provided by the DOE school food services division.



Four 45-minute academic blocks: language arts, math, wellness and leadership, were offered daily. In addition, Space Camp and three enrichment classes, music (violin), wellness, and art, were offered for two alternating weeks. Math and language arts objectives focused on targeted areas of need for each grade level based on the previous year's school-wide data and teacher input. Language arts used a workshop approach focusing on the reading process, reading conventions, and reading response. Grade 1 objectives were to: 1) read narrative text, 2) increase comprehension, and 3) use proper sentence structure when writing. Grade 2 objectives were to: 1) identify story elements of character, plot and settings; and 2) identify errors in sentences and edit for grammar. Grade 3 objectives were to: 1) increase reading fluency and accuracy, and 2) write poems with sensory detail. Grade 4 objectives were to: 1) respond accurately to questions about text with annotation, 2) practice writing constructed responses, and 3) write a Haiku poem. Grade 5 objectives were to: 1) use a variety of reading strategies to construct meaning from a variety of texts, and 2) describe how the author's word choice and use of imagery contribute to meaning. Grade 6 objectives were to: 1) increase independent reading using appropriate narrative and informational texts, and 2) understand text forms and features of narrative, expository and descriptive writing. Activities in all classes included silent reading, oral reading and partner reading using grade-appropriate library materials. All students used Accelerated Reading (computerized reading comprehension tests matched to the library collection). All math classes focused on improving student math skills and connecting math to real-world situations. Students began with WIST (Walk in and Start Thinking), solved a group problem utilizing real-world situations, and utilized the Math Whizz computer program. Each class spent the remaining one-half hour on grade-specific math skills. Grade 1 objectives were to increase student's number sense and operations. Grade 2 objectives were to: 1) explain the difference between repeating and growing patterns and 2) describe and create addition and subtraction number patterns. Grade 3 objectives were to: 1) deepen understanding of place value, and 2) solve two- and three-digit addition and subtraction problems. Grade 4 objectives were to: 1) practice for multiplication fluency, 2) deepen understanding of factors, and 3) use constructed responses. Grade 5 objective was to apply the inverse relationship between addition and subtraction, and multiplication and division. Grade 6 objective was to strengthen math knowledge through the use of Math Whizz.

Space Camp was a hands-on class that focused on NASA Space Camp activities. The instructor trained at the NASA Space Camp for teachers and many of the materials were from NASA. The objectives were to learn the history of space exploration, learn about space vehicles, astronauts, and their tools, and learn about our solar system with focus on the sun and the moon. Students participated in creating their own "space vehicle" and designed their own rockets. Students demonstrated movements of an aircraft, created a model of the solar system and moon phases, and launched their rockets in the school playground. A space camp video using the Discover Education website was created by the students. At the end of Space Camp, each student received a space program certificate.

The music classes focused on introduction to violin. Students learned how to read music and produce a sound on the violin. Class objectives were to: identify and play rhythmic values, quarter, half, and whole notes; read notes for and play open "E" and open "A," identify the major parts of the violin, demonstrate correct bow grip and play up and down bow markings.

Instruments were checked out to students after it was determined that the student is committed to the class and the instrument will be used appropriately and ethically. Parents/Caregivers signed an agreement to pay for lost or damaged instruments, but all instruments were returned.

The Art objectives were to use a variety of art tools and techniques, express feelings through art, and appreciate the art of others. Activities included drawing with several art media, mixing colors, color techniques for displaying emotion in art, print making and collage. Students learned to work with shapes, create patterns, and use measurement when working with art and were given opportunities to see how art and math are interrelated. Students shared their art and created an art display in the school library.

The Wellness objectives were to participate in regular physical fitness and conditioning, understand how healthy eating of fruit contributes to good health and nutrition, and learn rules and skills of baseball. Activities included class discussions on health and nutrition such as the healthy aspects of adding papaya to their diet. Students planted their own papaya for their families. A song was created by the students that contained some of the nutrition and health knowledge they learned in class. Elements of baseball were taught and students practiced batting, catching, throwing and base running. All students ran four laps around the playground daily, and did body stretches to foster physical fitness and conditioning.

The Maui Police Department Leadership class was created in partnership with the police department, the Nature Conservancy, Akaku (community TV), Na Pu`uwai (Hawaiian health center), and the Pacific American Foundation. Four community members teamed with a local police officer to instruct the course. The objectives were to learn skills to prevent violence and substance abuse, learn skills to help care for natural resources, and learn how to care for their bodies by making healthy choices. Students learned Hawaiian values and concepts as they relate to their own lives and healthy choices that help to prevent heart disease such as exercise and not smoking. Akaku helped students create a public service announcement aired on local TV to help spread their new knowledge.

Kamali'i Korner modeled after the Inpeace Keiki Steps to Kindergarten program was held July 7 - 20, 2011, Monday through Friday from 8 am - 12 pm for 18 students. Two Kaunakakai School Kindergarten teachers taught the students so they would be familiar with their teachers and classroom setting before entering school in August. This would help students with no preschool experience have a successful transition into group-learning environments to become productive learners, both academically and socially. The objectives were to: understand and follow rules and routines, effectively participate in a group, find enjoyment in school, make friends, and feel supported and be a part of the school ohana with their families. Children and parents participated in activities to learn skills that are important for school success. While the children learned to follow directions and socialize with other children, the parents learned developmentally and culturally-related activities the family could enjoy at home to support their child's learning. Learning to share, take turns, and raise their hands were a few of the basic skills the children learned so they can have success on their first day of kindergarten.

Drama was offered for one week July 18 - 22 from 8 am to 2 pm by staff from the Maui Arts and Cultural Center. During the class students had an opportunity to explore drama using an

environmental theme which culminated in a play called “Aloha Aina.” The play explored the theme of conservation and protecting the earth and sea. It showed through music, dance, and a script developed by the students how their actions have impact, and how taking responsibility can make a difference. This original play created by the Maui Dance Council included the colorful characters Mother Earth, Oil Slick, Ms. Styrofoam, the super hero Bio D. Gradable, rain forest creatures, and life under the sea. This story had particular relevance in light of the huge oil spill in the Gulf of Mexico. The instructors were excited to bring this awareness to children in a format they can relate to, giving them a fun and positive way to educate themselves and their community. Each day began with team-building drama and creative movement activities to develop imagination, concentration, and cooperation. Working together students wrote and learned the script, choreographed dances, and created sets, props, and costumes. The Maui Dance Council contributed art supplies and some materials for creating costumes and props. A show was held for the community on Friday, July 22 at 1 pm.

### Evaluation

Evaluation surveys were administered to students, parents and teachers. Students were asked to self-rate themselves on GLOs and project activities. Student forms, completed by grade levels, were returned by 23 first graders, 15 second, 16 third, 21 fourth, 9 fifth and 7 sixth graders for a total return by 91 or 78.4% of the 116 students. Students also self-rated themselves in the enrichment classes with 57 respondents in Art, 34 in Leadership, 46 in Music (violin) and 87 in Wellness. The results were generally positive for all grade levels and enrichment classes with students responding Always or Usually to meeting the GLOs and Usually and Sometimes for project activities. Comments were numerous and very positive. Students liked the class content and teachers and that the classes were fun and enjoyable. Touching the cow and deer hearts was evenly divided between those who liked it and those who did not. Positive comments besides those for academic areas included filming, drug education and learning about limu.

Parents were asked whether their children met the GLOs as a result of the class and whether the class helped in academic content skills, personal development, and importance of education. Parent forms were returned by 62 parents or a return rate of 68.1% based on the number of students (119) who completed the program. The results were generally positive for the GLOs with the majority of the parents Agreeing or Strongly Agreeing with the GLOs. For helpfulness of the class in math, reading, science, personal development and importance of education, all but one of the parents responded "Yes"; one parent responded "Not Applicable." All parents rated the classes on content, teaching, pacing, environment and interaction as 3 to 5 on a 5-point scale, with two-thirds of them rating the classes excellent. All comments were positive: awesome, wonderful, great program, enjoyed hearing every day about the different activities, kept them interested and wanting to go back, please keep this program going.

Seven (7) grade-level teachers evaluated 119 students on behaviors, GLOs and class objectives. Teachers rated 56 students for Art, 68 for Leadership, 62 for Music, 117 for Space Camp, and 121 for Wellness. The teachers generally rated the students as making Significant, Moderate or Slight Improvement, except for grade 2 where 17 of 20 ratings were "No Change," and Grade 3 where most ratings were "No Change" except for class objectives where all students were rated Slight Improvement. The five (5) enrichment class teachers rated the students as making

Significant Improvement (Art, Wellness), mostly Significant Improvement (Space Camp), mostly Significant or Moderate Improvement (Leadership), and Slight Improvement (Music).

Student attendance and completion data (in parentheses) were: Kamali`i Korner (18, 15), Space Camp (122, 116), Grade 1 (28, 28), Grade 2 (19, 18), Grade 3 ( 22, 22), Grade 4 (21, 21), Grade 5 (16, 15), Grade 6 (17, 12), Drama (29, 29), Moonbots (4, 4), Art (63, 59), Leadership (76, 70), Music (62, 54), Wellness (123, 106).

### Moonbots

Four Molokai high school students became a Google Lunar X PRIZE LEGO® MINDSTORMS® Challenge team called the “Molokai Mahina.” The MoonBots Challenge is for small teams of children ages 9-18 to research lunar exploration, design, program, and construct robots, using LEGO bricks and MINDSTORM components. They perform simulated lunar missions similar to those required to win the \$30 million Google Lunar X PRIZE, a private race to the Moon designed to enable commercial exploration of space while engaging the global public. This completely electronic competition had over 75 registered teams representing every continent except Antarctica. The competition had three phases, each one allowing a select number of teams to advance.

The students spent the initial meetings learning about the moon and previous lunar exploration and about the MoonBots 2.0 Mission requirements. One component of the competition was to create a STEM community service announcement as an outreach event on what the most beneficial discovery from previous lunar exploration had been, what people are capable of doing right now with lunar exploration, and what the team thought people could do in the future. The team spent many personal hours researching and learning about the moon via textbooks, history books, movies and the internet. They created a blog, a CAD of their robot and built and programmed their robot for the MoonBots 2.0 Mission. The team had a few lessons on the Google Sketch Up software and then, through trial and error, was able to create a CAD Robot Design to submit electronically to judges.

The Molokai team was one of twenty teams chosen to advance to Phase 2 of the competition, the only team chosen from Hawaii ever. For being in the top twenty, each member received a t-shirt and the team won a LEGO Mindstorm robot kit. In the second stage the team had to build their robot and compete via video chat with a judge in England. Though the team did not win the overall competition, they were very proud to have placed in the top twenty in the world. More information on the work of the Molokai Mahina MoonBots team, copies of their video essay, CAD, and other images can be found at [www.molokaimahina.blogspot.com](http://www.molokaimahina.blogspot.com).

No evaluation surveys were administered for Moonbots.

### **Kilohana Elementary School**

The Kilohana School summer enrichment program was conducted through a partnership with Summer Play and Learn Sessions (PALS). The mission of PALS is to provide a safe, nurturing and quality recreation program for the children of Maui County that addresses physical, social, cultural, and educational needs during summer and intersession breaks. The summer program consisted of Keiki Steps to Kindergarten, Horticulture, Arts and Crafts, Drawing and Painting,

Kempo, and Violin classes. To offer flexibility for families, students could register for only one class or sign up for the entire program. Most summer students registered for both 21<sup>st</sup> Century classes and PALS. Since PALS was a full day program, students were “pulled” from the PALS program to attend 21<sup>st</sup> Century classes. Although 34 students registered for the summer program, only 22 students attended regularly Monday through Friday from June 6 - 30. For many students, the classes were a continuation from the previous school year. An “open” computer lab was available during the lunch hour for students to explore the internet, word process, or play computer-based learning games. A certified teacher was available in the computer lab to assist students as needed

Keiki Steps to Kindergarten offered from 8-11 am on Monday through Thursday. was designed to help pre-K children transition from home to school successfully. Similar classes are offered throughout Hawaii. Children and parents participated in activities to learn skills that are important for school success. While the children learned to follow directions and socialize with other children, the parents learned developmentally and culturally-related activities the family could enjoy at home to support their child’s learning. Learning to share, take turns, and raise their hands were a few of the basic skills the children learned so they can have success on their first day of kindergarten.

Horticulture was held on Mondays and Tuesdays from 8-11 am. In this hands-on class, students had an opportunity to learn how to grow and care for plants, understand the pros and cons of organic gardening methods, learn about local plant varieties, and learn how to use gardening tools and instruments to care for plants. The class was divided into three segments. During the first segment the students observed their plants and recorded their observations in their garden logs. The next segment focused on content which was elements of composting with an emphasis on studying how worms are a vital part of soil quality and plant health. Students were given worm boxes to raise worms for the garden. They learned how to care for the worms, the life cycle of the worm and gained knowledge of the benefits worms provide to horticulture. The third segment was hands-on gardening and caring for their worms. This course will be continued during school year 2011-2012.

Arts and Crafts was held on Wednesdays and Thursdays from 8-11am. Students explored macramé, sand art, shell art and origami based upon interest. The objectives were to: learn to use a variety of techniques to create art, apply art forms such as macramé, sand and shell art, and origami, and to understand how hobbies and personal interests may lead to careers. Each class began with whole group demonstrations of the skills needed for the day’s art activity. Hands-on activities included collecting natural materials such as sand, shells, and environmental materials in addition to creating crafts. Students learned that it is not always necessary to purchase materials to create art. Creative skills such as forms of weaving used in macramé, sand dying to create color variations for their sand art, and basic and advanced folds for origami were taught. Students practiced following directions, observed demonstrations of creative use of materials, and applied the concepts of color and texture to their creations. Students used small shells such as puka shells to create repeating and alternating patterns using macramé weaving techniques. Their creations were displayed in the school cafeteria.

Drawing and Painting was offered on Wednesdays from 11 am - 3 pm. Students had opportunities to draw landscapes (content focus) using various media and tools: chalk, pencil, charcoal, pastels, and colored markers. Students also had opportunities to paint landscapes with tempera and watercolor paints using flat brushes and filbert brushes. Elements of composition were taught. K-3 students focused on using the entire page, balance, use of background and point of view. Grades 4-6 students focused on perspective, horizontal balance and harmony within their drawings. Using the color wheel, all students applied knowledge of color schemes, complementary colors, hues, tones, and neutral colors. The upper grades discussed how color can be used to intensify emotions and ideas in a drawing or painting. Lower grades practiced mixing colors to produce hues and tones. The class displayed their work in the cafeteria and office for the community to view. Comment cards were made available so the students could have feedback on their work. They were proud of their display and enjoyed the community comments.

Kempo, a form of Karate, was offered Mondays, Tuesdays and Thursdays from 12-2 pm. Student objectives were to demonstrate warm up movements, perform Kempo movement sequences, and demonstrate movement form. All movements are based upon Kempo principles:

1. establishment of base - firmly rooted on the ground to help block, strike or kick an opponent
2. principle of distance from the opponent
3. economy of motion – learning prelude to strike
4. timing – learning to block effectively
5. blocking – done with wrist and elbow from the inside and above the elbow on the outside.

Each class began with warm-ups. Then the students were taught how to perfect some of the techniques used to support the principles of Kempo. Defensive arm and leg movements were practiced. Emphasis was placed upon non-violent self defense techniques. Participants were encouraged to wear a uniform while learning the principles of Kempo.

Violin was held on Mondays and Tuesdays from 2-4 pm. Students learned how to read music and produce a sound on the violin. Class objectives were to: identify and play rhythmic values, quarter, half, and whole notes; read notes for and play open “E” and open “A,” identify the major parts of the violin, demonstrate correct bow grip and play up and down bow markings. Instruments were checked out to students after it was determined that the student was committed to the class and the instrument would be used appropriately and ethically. Parent/Caregivers signed an agreement to pay for lost or damaged instruments, but all instruments were returned.

### Evaluation

Evaluation surveys were administered to students, parents and teachers. Students were asked to self-rate themselves on GLOs and project activities. Student forms returned are indicated in parentheses for Steps to Kindergarten (4), Horticulture (5), Arts and Crafts (20), Drawing and Painting (16), Kempo (13), and Violin (3). The results were generally positive with students responding Always or Usually to meeting the GLOs and Usually or Sometimes for project activities. Comments were numerous and very positive. Students liked the class content and that the classes were fun.

Parents were asked whether their children met the GLOs as a result of the class and whether the class helped in academic content skills, personal development, and importance of education. Parent forms were returned by 7 parents or a return rate of 10.8 % based on the number of students (65) who completed the program. The results were generally positive for the GLOs with the majority of the parents Agreeing or Strongly Agreeing with the GLOs. For helpfulness of the class in math, reading, science, personal development and importance of education, most or all of the parents responded "Yes." All parents rated the classes on content, teaching, pacing, environment and interaction as 3 to 5 on a 5-point scale, with most of them rating the classes excellent. All comments were positive: excellent, great and exciting class, children learned a lot, liked the child interaction and socialization skills practiced.

Six (6) teachers evaluated 111 students on behaviors, GLOs and class objectives. Teachers rated 10 students for Keiki Steps, 19 for Horticulture, 20 for Kempo, 33 for Arts and Crafts, 19 for Drawing and Painting, and 10 for Violin. The teachers generally rated the students as making Significant, Moderate or Slight Improvement in all the areas, except for Keiki Steps with half or less than half, Arts and Crafts where most ratings were "No Change" and Violin with many "No Change" ratings.

Student attendance and completion data (in parentheses) were: Steps to Kindergarten (11, 4), Horticulture (13, 9), Kempo (15, 10), Arts and Crafts (21, 19), Drawing and Painting (16, 11), Violin (6, 5).

### **Maunaloa Elementary School**

The Maunaloa School summer enrichment program was conducted through a partnership with Summer Play and Learn Sessions (PALS). The mission of PALS is to provide a safe, nurturing and quality recreation program for the children of Maui County that addresses physical, social, cultural, and educational needs during summer and intersession breaks. The summer program consisted of math and reading skills maintenance, cooking and hula classes.

Forty-two (42) students attended the program Monday through Friday from June 13 to July 9. Students began arriving between 7 am and 8 am daily. Breakfast was offered through county funding and informal social play filled the time until 8 am, the official start of the day. Project activities were offered from 8:15 - 11:00 am from Monday through Thursday. Students were grouped by grade levels (K-3 and 4-6) for all classes. The reading and math skills maintenance class teachers were assisted by one other support adult. The objectives were based on the students' academic performance and targeted needs from the previous school year. The teachers used research-based instructional materials to support instruction. Cooking and hula classes focused on Hawaiian culture. The K-3 reading objectives were to demonstrate beginning and ending sounds, apply multisyllabic segmentation rules to text, and read fluently. Instruction focused on phonological awareness skills, alphabet understanding, word reading, writing, and integrating phonologic awareness and letter-sound to whole word writing. The Scott-Foresman Early Reading Intervention Program and Anita Archer's "Phonics for Reading" and daily fluency practice were used to support reading success and help improve the students' reading skills. The 4-6 reading objectives were to increase reading vocabulary and comprehension and read fluently at grade level. The Corrective Reading Program and daily practice helped students maintain gains made during the previous school year and provide support for need areas.

The K-3 and 4-6 math objectives were to apply math skills to daily work, demonstrate increased computational fluency, and apply newly-learned study habits while working. Each class used grade-level materials to review number sense, number concepts, algorithms, and modeling. Instructional materials from Everyday Math, online sites and teacher made materials were used. Timed tests in addition and subtraction were given in the K-3 class and multiplication and division in the 4-6 class. Students charted their progress throughout the four weeks.

The cooking objectives were to use sequence to read recipes; use and develop counting and measuring skills; follow directions; use verbal skills to describe how things taste, look and smell; discriminate between tastes such as sweet and sour; reinforce and build social and motor skills; and create own recipes for the class recipe book. Students learned and applied cooking safety by understanding the importance of washing their hands and keeping their areas sanitized. They learned to organize their cooking utensils and ingredients and the preparation of certain items before cooking. All students helped with clean-up by taking turns washing, rinsing, and drying dishes and utensils. The students sampled what was made and reflected on what they learned. Recipes from the “American Classic Comfort Foods,” “Hawaiian Traditional Foods,” and foods for “The Health Conscience” were used.

The hula objectives were to: demonstrate proper warm up prior to dancing, proper form for hula steps and hand movements; and express meaning of song through dance. Students learned about the origin of hula and its significance to the Hawaiian people, the importance of respecting their Kumu (teacher) and peers, and to learn and cooperate with one another. Students were taught to dance to a specific song and learned its history. Activities were included to reinforce what they learned regarding the language, culture, and dance.

A Hoiki was held on Thursday July 8 where 16 families came to enjoy food cooked by the students, a hula presentation and oral readings.

Summer PALS activities designed to foster athletic/physical fitness, social interaction, and summer crafts were held on Fridays and in the afternoons until 3:30 pm. Activities included trips to the local pool in Kaunakakai and trips to Kilohana, Kaunakakai, and Kualapuu Schools to play summer and cultural games and perform basketball skill drills. Lunch was not provided this summer, so students brought home lunches.

### Evaluation

Evaluation surveys were administered to students, parents and teachers. Students were asked to self-rate themselves on GLOs and project activities. Student forms were returned by 23 K-3 Reading, 10 4-6 Reading, 15 K-3 Math, 9 4-6 Math, 24 Hula, and 27 Cooking students for a total return by 108 or 58.7% of the 184 students. The results were generally positive with most students responding Always or Usually to meeting the GLOs and Usually and Sometimes for project activities.

Parents were asked whether their children met the GLOs as a result of the class and whether the class helped in academic content skills, personal development, and importance of education. Parent forms were returned by 16 parents or a return rate of 17.4% based on the number of students (92) who completed the program. The results were generally positive for the GLOs with 14 of the parents Agreeing or Strongly Agreeing with the GLOs. For helpfulness of the



class in math, reading, science, personal development and importance of education, all the parents responded "Yes" except for Science where 9 responded "No" or "Not Applicable." All parents except 1 rated the classes on content, teaching, pacing, environment and interaction as 3 to 5 on a 5-point scale, with two-thirds of them rating the classes excellent (5) except for pacing which had two-thirds rating 4-5.

Seven (7) teachers evaluated 168 students on behaviors, GLOs and class objectives. Teachers rated 23 K-3 Reading students, 19 Grades 4-6 Reading students, 23 K-3 Math students, 19 Grades 4-6 Math students, 23 K-3 Hula students, 19 Grades 4-6 Hula students, and 42 K-6 Cooking students. The teachers generally rated the students as making Significant, Moderate or Slight Improvement in all the areas, except for cooking where Significant Declines were noted in about 11 of 42 students.

Student attendance and completion data (in parentheses) were: Reading K-3 (27, 16), Reading 4-6 (19, 10), Math K-3 (27, 16), Math 4-6 (19, 10), Hula K-3 (27, 16), Hula 4-6 (19, 10), Cooking K-3 (27, 16), Cooking 4-6 (19, 10).

The summer program was highly successful with a full program of studies, partnerships and positive responses from students, parents and teachers at the three sites that offered summer programs.

### Conclusions

1. Two and a half of the 4 project participation objectives and two of the 4 completion objectives were met.
2. Project management has improved, but more can be done in program planning, implementation and data collection.
3. All 6 sites implemented the program, but only Kaunakakai School offered all four components with 29 courses. Kilohana School, Molokai Middle School and Molokai High school implemented 3 components with 11, 7, and 6 courses respectively. Kualapuu and Maunaloa Schools implemented 2 components with 3 courses each.
4. Most evaluation forms returned by students, parents, teachers and community members were generally positive. Some courses had no or low return rates. Some courses had student assessments which were not in agreement with teacher ratings.
5. The number of classroom teachers rating the effect of the project on regular project attendees (attended 30 days or more) was 25 teachers for 319 students: 14 teachers at Kaunakakai School for 150 students, 7 teachers at Kilohana School for 40 students, one teacher at each of the other schools for 8 students (Kualapuu), 27 students (Maunaloa School), 84 students (Molokai Middle) and 10 students (Molokai High). At all schools students who needed to improve made slight to significant improvements.
6. Three sites had enrichment programs during the summer. Kaunakakai School offered language arts, math, wellness and leadership, space camp, violin, art and drama. Kilohana School offered Keiki Steps to Kindergarten, horticulture, arts and crafts, drawing and painting, kempo and violin. Maunaloa School offered math, reading, cooking, and hula.

## Recommendations

1. Revise course offerings and components in view of reduced funding for Year 5.
2. Review project proposal and evaluation reports and improve project implementation accordingly.
3. Ensure timeliness of data collection and completion of required forms.