

WAIANAE HIGH SCHOOL

POLYNESIAN VOYAGING PILOT

STUDY UNIT: Polynesian Voyaging

DISCIPLINE: Marine Science (Two Credit Course)

INSTITUTION: Waianae High School

CLASS SCHEDULING: Periods 5 & 6 / Monday thru Friday

COURSE LENGTH: First Semester / School Year 78-79

SUMMARY OF COURSE OUTLINE

Migratory History of Polynesia
Orientation To The Outrigger Canoe
Orientation to The Voyaging Canoe
Basic Sailing
Ancient Hawaii In Harmony With The Sea
Boating Skills & Seamanship
Advanced Life Saving
First Aid
Aids To Navigation
Role of the Voyaging Canoe in the Settlement of Polynesia

SUMMARY PROFILE OF STUDENTS

1. Of the 28 students, school records indicate that all but four have historically been low academic achievers with average grades of "D" or below.
2. Eighty Five % of the students have some quantum of Hawaiian blood and ninety two % live in a home environment where Hawaiian is the dominant culture.
3. All students have a chronic history of non-attendance and high absentee rate from school.
4. All students have expressed a strong desire to participate in this program as an alternative to the normal marine science courses.

SPECIFIC OBJECTIVES TO PRIMARY GOALS

1. To provide an alternative program of marine studies for high school students identified as academic under-achievers with a history of low academic achievement with emphasis on students from the Hawaiian community.
2. To develop curriculum materials and teaching methodology for application within the D.O.E. system.
3. To provide the student with an increased awareness of the natural relationship between ancient Hawaiian marine skills including proper management of the ocean resources and its appropriate applicability to modern day western marine practices.
4. To provide the student with an in depth Hawaiian cultural historical orientation to the sea-faring heritage of the Polynesian people with emphasis on ancient Hawaiian marine traditions.
5. To develop an increased awareness of the ocean environment.
6. To provide the student with recreational and vocationally oriented culture based marine skills.
7. To provide achievement oriented learning situations that reinforce the students self-esteem, self confidence, and self-image.

STUDENT ENROLLMENT

1. Melvin Puu	17	21. Mike Kapeliela	15
2. Rollen Podello	13	* 22. Curtis Lasconia	16
3. Starnani Keliihoomalu	14	23. Angela Manzano	16
4. Henrietta Keliihoomalu	16	24. Vance Nakasone	16
* 5. Debbie Aken	16	25. Kenneth Oshiro	16
6. Ivan Aila	17	26. Keith Pine	15
* 7. Frank Allensonorin	16	27. Leroy Puu	15
8. Pat Bader	14	* 28. Kaleo Sniffin	18
9. Aldean Barrozo	15		
10. Pat Boyce	18		
11. Kevin Burke	15		
* 12. Rodney Chong	18	* Students with severely chronic absences from beginning of semester	
* 13. David Colon			
14. Calvin Ferreira	18		
15. Stewart Ferriman	16		
16. Eddie Gagarin	14		
* 17. Donovan Gonsalves	13		
18. Deborah Hoapili	16		
19. Guy Kaneshiro	14		
* 20. Regina Kaahaaaina			

STUDENT PERFORMANCE TO DATE (1/10/79)

The following information is presented at random and is based on this writer's observations and experiences with the students to date. It is not intended as an evaluation which will be forthcoming via the Kamehameha Schools Office of Program Evaluation at the conclusion of the course.

ABSENTEE RATE

Of the twenty-eight students that started the course, one student voluntarily switched to metals shop, while seven students or approximately 24.5% have a history of severely chronic absences from class and from school in general. Considering the generally high risk nature of the entire target group and the 28% absentee rate for all Waianae High School students this writer is not overly concerned with these seven students non-attendance. These seven students seem to be in need of special counseling and a much improved and more supportive home environment which cannot be provided within the framework of this class. No special efforts at counseling any of the students has been made except for an occasional hooponopono session with the entire class.

It should be mentioned that the lack of a regular classroom and consequently the nomadic nature of where the class meets seemed to have an effect on the absentee rate. As of monday, January 8, the class was finally assigned to a portable classroom building following a district level meeting of the contributing agencies during which this problem was addressed. In the short time that the class has enjoyed the benefits of its own room there has been a noticeable "settling" of student behavior during class, a growing feeling of the Ohana spirit among the students, a sharp increase in the learning rate based on test results and student-teacher interaction and a general stabilization of the students attitude toward the learning environment.

INSTRUCTORS

As a result of the inter-disciplinary nature of the various learning units covering a wide range of cultural and non-cultural subject matter it was necessary to secure a number of instructors to teach their specialties. This parade of instructors from week to week had a severely unstabilizing effect on the students ability to adjust to a variety of teaching styles, varying disciplinary methods, and extreme differences in teaching philosophy. This situation when coupled with the lack of a regular classroom made the going quite rough at times. The "changing instructors" situation has been arrested in that the learning area focus is now heavily concentrated in the cultural learning areas being taught by the same volunteer instructor. The students seem to have an increased sense of security as a result and are showing a sharp rise in the learning rate curve. The "changing instructors" situation might be resolved next time around through a better "sequencing" of the learning units 65% of which

can be taught by the same teacher making possible a better "dispersion" of the "guest" instructors throughout the length of the course.

IMMEDIATE STUDENT BENEFITS

In the course of including several basic entry level occupational marine skills as a way of providing achievement-oriented tangible learning experiences for the students we are experiencing some immediate results in the way of student employment opportunities. Four of the students, including one female, successfully obtained jobs as lifeguards at the Waianae High School swimming pool as a result of their advanced life-saving certification earned in this course. These jobs were secured through the students own initiative and we like to think that the positive achievement-oriented learning experience contributed to their ability to cope with the employment seeking process. Other students are seeking summer employment opportunities that require skills learned during the course.

EVALUATION

As most project personnel are aware Dr. James Brough and colleague Julie Abe of the Kamehameha Schools Evaluation department are conducting the evaluation process based on the goals and objectives as stated in the project write-up. A pre-test based on materials and information provided the evaluators at the outset of the school year was administered on September 25, 1978. A post test based on the same material will be administered on January 29, 1979 to monitor the amount of cognitive gains by the students for the first semester. Other evaluation techniques being employed are: 1) Photo documentation of class activity; 2) Interviews with the students following the semester; 3) Interviews with staff & instructors. All data will then be compiled and interpreted.

PARENT ADVISORY GROUP

A parent advisory group was formed at the beginning of the semester composed of parents whose children are enrolled in the class. A more detailed report on this advisory group's role and participation is submitted as a separate attachment to this report.

CURRICULUM MATERIALS

All curriculum materials used in this course have been compiled under separate cover. A master listing of these materials is provided as an attachment to this report.

PARENT ADVISORY GROUP

The major parental activity since the last report was involvement in a shave ice sale held to raise funds for the Maui trip. Except for the parents of students who don't live with their family, every parent was in some way involved with the sale which took place November 18, at the Leeward Mental Health Ho'olaulea in Nanakuli Park. Four parents worked with us all day the date of the sale, and all families either donated money, equipment or supplies for making the shave ice, helped set up the booth, or supplied food for those working at the booth. After the \$15 due the sponsors of the Fair was deducted, there was a profit of \$172.85 which was placed in a savings account at the Waianae branch of the Bank of Hawaii.

In addition, on December 11, three parents, Marion Burke, Dixie Padello and Mona Sniffen went to a planning meeting called by Rose Pfund and attended by District Superintendent Viduya, most of the DOE staff involved in Ho'i Ana I Ke Kai, Peter Apo, Rella Sunn and Isabel Hacskeylo. They expressed an interest in helping to work out some of the problems that the project has been encountering in the administration of the High School Program, and were able to assist with some very eloquent testimony regarding how the class was benefitting their children.

Because of family commitments during the Holidays, the Parents Advisory Group decided not to meet in December. The January meeting will be called during the last week of the month and will be devoted to the parents' role in the trip to Maui.

Isabel Hacskeylo

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POLYNESIAN VOYAGING CURRICULUM MATERIALS

The following represents curriculum materials compiled to date.

- * Not included as part of the attached exhibits are those materials which do not lend themselves readily for inclusion in this presentation such as wall size graphics and cumbersome visual aids as well as textbooks.

A large percentage of the materials were excerpted from existing publications and subjected to editing and rewriting in order to enhance their applicability in the teaching of this course.

Other materials were developed based on the instructors independent research and existing knowledge of the subject matter.

1. Sea Grant Advisory Pamphlet "ANCIENT HAWAII IN HARMONY WITH THE SEA"
2. Narrative to Sea Grant slide presentation "ANCIENT HAWAII IN HARMONY WITH THE SEA".
- * 3. Sea Grant Slide presentation "ANCIENT HAWAII IN HARMONY WITH THE SEA".
4. End of Unit Test "Ancient Hawaii In Harmony With The Sea" developed by instructor.
5. "POLYNESIAN VOYAGING" foldout exhibition developed by the Polynesian Voyaging Society for the D.O.E. Office of Instructional Services reproduced in loose leaf format by project staff.
6. Excerpts from "POLYNESIAN VOYAGING" incorporated with instructor designed "Canoe Terminology", "Canoe Paddling Tips", & "Racing Outrigger Paddling Positions" materials.
7. Instructor designed Canoe Paddling end of unit quiz.
8. Instructor developed Canoe Terminology Test.
9. "Hawaiian Academy Basic Sailing Course". An edited & rewritten version of Basic Sailing materials prepared by the U.S. Air Force Office of the Harbormaster / Hickam Air Base.
10. Instructor developed Sailing Terminology Test.
11. Instructor developed Basic Sailing Quiz.
12. "Written Test For Sailing Activities" prepared by Office of the Harbormaster - Hickam Air Base.

Curriculum Materials cont'd

- * 13. "BOATING SKILLS & SEAMANSHIP" Textbook. U.S. Coast Guard Auxillary.
- 14. "Boating Skills & Seamanship" student workbook. U.S. Coast Guard Auxillary.
- 15. Instructor developed "Aids To Navigation" Review sheet handout.
- 16. Instructor developed "Aids To Navigation" Review Quiz.
- * 17. Excerpts from "POLYNESIAN SEAFARING" Textbook. Dodd, Mead, & Company. Book. Book. Edward Dodd.
- * 18. "FIRST AID" Textbook and student workbooks in conjunction with American Red Cross Multi-Media Course.
- * 19. Wall Sized Double Hulled Voyaging Canoe Graphic display. Reproduced by Kamehameha Schools graphic arts department from "POLYNESIAN VOYAGING" foldout exhibit.
- * 20. Wall Sized Widgeon Dinghy graphic display reproduced by Kamehameha Schools graphic arts department. Original prepared by Hickam Harbor-masters Office / Hickam Air Base.
- 21. Polynesian Voyaging Course pre-test prepared by Kamehameha Schools Office of Program Evaluation.
- 22. "HAWAI'I FISHING LAWS & REGULATIONS FOR SALT WATER SPORTS FISHING" foldout prepared by Sea Grant Marine Advisory Program.

NOTE: All listed curriculum materials appear in the same numbered sequence as outlined above and are identified by the same number listing in the upper right hand corner of each cover page.

RECORD OF CLASS ACTIVITY TO DATE (10/31/78)

DATE(S)	LEARNING ^{Unit} AREA	INSTRUCTOR(S)	CONTENT	MATERIALS/EQUIP.	EXERCISES
9/11	Course Orientation	Peter Apo	Roll call, review course outline, attitude & class behavior expectations, slide presentation "Ancient Hawaii-In Harmony With The Sea."	Course outline hand-out. (Exhibit #)	Sign roll book-view slide presentation.
9/12	Orientation to Voyaging Canoes	Peter Apo Rella Sunn	Performance characteristics of Voyaging canoes (non-keel) in sailing to windward..... Navigational problems of Hokulea Tahiti experiment.	90 minute Nat'l Geographic Hokulea film	View Hokulea Film
9/13	Orientation to Outrigger Canoe	Hershey Daos Peter Apo Rella Sunn	Terminology, paddling technique, boarding procedure, launching, safety.	Two racing outriggers	Launching & paddling in protected waters of Pokai Bay.
9/14	Local Water Conditions	Rella Sunn Larry Goddard	Local weather, currents, tides.	Snorkeling Gear	Lecture & Snorkeling at Makaha Beach Park
9/15	Class pre-empted	-	-	-	-
9/18-10/10	Advanced Life Saving	Albert Wong Rella Sunn	Standard Red Cross Certified Life Saving Course	Rescue floatation devices.	Conditioning, basic strokes, artificial respiration, rescue carries, holds, breaks, floatation devices, etc. Certification Test.
9/25	Evaluation Pre-test...points of sail theory.	Julie Abe (pre-test)...Peter Apo (sailing)	Pre-test sample attached. Points of Sail, wind power, tacking.		Question & Answer Session

DATE(S)	LEARNING AREA	INSTRUCTOR(S)	CONTENT	MATERIALS/EQUIP.	EXERCISES
10/11	Life Saving Test	Albert Wong & Rella Sunn	Standard Red Cross Certification test.		Standard Red Cross Certification test exercises.
10/12	Ancient Hawaii-In Harmony With The Sea	Rella Sunn	Ancient Hawaiian methods of conservation and management of Ocean resources, fishing as subsistence economy, living in harmony w/nature.	Sea Grant slide presentation "Ancient Hawaii In Harmony With The Sea. Read and discuss "script narration" (see attached).	Reading of narration script...copy attached.
10/13	Free Period	-	-	-	-
10/16-20	Red Cross First Aid Course	Bodo Van Der Leeden	Multi-media First Aid Course	Red Cross first aid text & workbooks, bandages, splints, etc.	Standard exercises
10/23	Class pre-empted for lack of classroom.	-	-	-	-
10/24-31	Boating Skills & Seamanship	Commodore Chase	Boating safety, boat handling, rules of the road, aids to navigation, piloting, weather, marine engines, boater's language & trailer-ing, radio-telephone.	Boating Skills & Seamanship text and student workbook, misc. handouts.	Homework assignments covering one lesson per day w/workbook.

TO BE CONTINUED AT NEXT REPORTING PERIOD

ILLEGIBLE

RECORD OF CLASS ACTIVITY FROM: Nov. 1 to Nov. 20, 1978

DATE	LEARNING UNIT	INSTRUCTOR	CONTENT	MATERIALS/EQUIPMENT	EXERCISES	# STUDENTS
11/1	Aids To Navigation	Cmdr. Chase	Lateral System, Intra-coastal system, Western Rivers System.	C.G. Text Boating Skills & Seamanship	Lecture	18
11/2	Aids To Navigation	Cmdr. Chase	Buoys, Lights, Day Markers	C.G. Text	Lecture + Buoy, Lights, & Day Marker visual aid	28
11/3	Aids To Navigation	David Lyman	Field Trip To Honolulu Harbor		Tour & Lecture of Honolulu Harbor	18
11/6	Holiday					
11/7	Heavy Rains / Class cancelled					
11/8	Boating Skills	Peter Apo Rell Sunn	Review of Boating Skills & Aids to Navigation	Aids To Navi. handout	Study Hour & Review for test	20
11/9	Aids To Navigation	Peter Apo Rell Sunn	TEST: AIDS TO NAVIGATION			21
11/10	HOLIDAY					
11/13	Basic Sailing	Peter Apo	Points of Sail & Basic Sailing Vocabulary	Hawaiian Academy Sailing Handbook	Lecture	17
11/14	Basic Sailing	Peter Apo	Basic Sailing Terminology	Hawaiian Academy Sailing Handbook	Lecture	13
11/15	Basic Sailing	Peter Apo	Sailing Hulls / Performance Character.		Lecture	15
11/16	Basic Sailing	Peter Apo	Rigging, Sail Types, Lines		Lecture	17
11/17	Basic Sailing	Peter Apo	Review Sailing Terminology	Hawaiian Academy Sailing Handbook	Lecture	28
11/20	Basic Sailing	Peter Apo	Review Points of Sail & Sailing Terminology	Hawaiian Academy Sailing Handbook	Lecture	28

ILLEGIBLE

RECORD OF CLASS ACTIVITY FROM: Nov TO Dec 12, 1978

DATE	LEARNING UNIT	INSTRUCTOR	CONTENT	MATERIALS/EQUIPMENT	EXERCISES	# STUDENTS
11/21	Basic Sailing	Peter Apo	Knots & Lines: Bowline, Figure 8, Square, Clove Hitch, Cleat Hitch	Nylon 1/4" Rope	Demonstrate 5 basic knots:	18
11/22	Basic Sailing	Peter Apo	Coming About, Jibing, Course plotting		Lecture	16
11/23	Holiday					
11/24	Holiday					
11/27	Basic Sailing	Peter Apo Rell Sunn	Basic Sailing Quiz			20
11/28	Class Cancelled		No Classroom			
11/29	Class Cancelled		No Classroom			
11/30	Classroom Problem discussion	Peter Apo	Discussed problem of no regular classroom and its effect on attendance. Cleaned up P.E. Equipment storage room.			18
12/1	Basic Sailing	Peter Apo	RAIN OUT...NO CLASS			
12/4	Basic Sailing	Peter Apo	Review Section 1 of Sailing	Hawaiian Academy Bk.	Lecture	16
12/5	Basic Sailing	Peter Apo	Review Sailing Section #2	Hawaiian Academy Bk.	Lecture	18
12/6	Basic Sailing	Peter Apo	Review Sailing 1 & 2	Hawaiian Academy Bk.	Lecture	18
12/7	Basic Sailing	Peter Apo	BASIC SAILING TEST			17
12/8	Basic Sailing	Peter Apo	Review Knot tying...orientation to Sunfish sailboat	Graphic art aids	Lecture	9
12/11	Basic Sailing	Peter Apo Rell Sunn	Dry land exercises at Pokai Bay on Rigging and points of sail	Two-12' Sunfish boats		not logged
12/12	Basic Sailing	Peter Apo	Sailing in Pokai Bay; practice jibing & coming about	Two-12' Sunfish boats		not logged

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RECORD OF CLASS ACTIVITY FROM: Dec 1 78 TO Jan 10, 1979

DATE	LEARNING UNIT	INSTRUCTOR	CONTENT	MATERIALS/EQUIPMENT	EXERCISES	# STUDENTS
12/13	Hooponopono	Harriet O' Sullivan	Problem solving discussion with class at Peter Apo's home re: gathering students input and self evaluation of class to date.	HEAVY RAINS TODAY: POOR ATTENDANCE		11
12/14	Basic Sailing	Peter Apo	Continue Sailing exercises Pokai Bay	Two-12' Sunfish	Free Sailing	12
12/15	Basic Sailing	Peter Apo	Sailing exercises @ Pokai Bay	Two-12' Sunfish	Free Sailing	14
12/16	BREAK FOR CHRISTMAS VACATION.....RETURN ON JANUARY 2, 1979					
12/19	VACATION SAILING FOR	STUDENTS WHO CAN ATTEND				
12/21	VACATION SAILING					
12/26	VACATION SAILING					
12/28	VACATION SAILING					
1/2	Outrigger Canoes	Peter Apo	Terminology & parts identification	P.V.S. Canoe hand-out...	Lecture	10
1/3	Voyaging Canoes	Peter Apo	Terminology & parts identification	P.V.S. handout	Lecture	10
1/4	Voyaging Canoes	Peter Apo	CANOE TERMINOLOGY & PARTS TEST			16
1/5	Discussion of Maui trip & sail on Mo'olele	Peter Apo	Trip dates changed to February due to bad seasonal weather			19
1/8	Canoe Paddling	Peter Apo	Paddling Theory, Racing crew positions, Rigging of Outrigger.	WHCC Handout	Lecture & dry land paddling exercises	18
1/9	Canoe Paddling	Peter Apo	CANOE PADDLING TEST			20
1/10	Ancient Hawaii: Harmony w/the Sea	Peter Apo	Vocabulary drawn from narrative Ocean management / Kapu system	Sea Grant Handout	Lecture	18

ILLEGIBLE

MARINE SCIENCE		Waianae High School - 5-6th Period		
1st Semester - Polynesian Voyaging - Second Draft				
LEARNING AREA	INSTRUCTOR	MATERIALS	EXERCISES	LOCATION
Introduction - Orientation to Course	Peter Apo	Slide Show - Ancient Hawaii in Harmony with the Sea		Waianae High School
Migratory History of Polynesia (Comparative Study of Double Hulled Canoe)	Herb Kane or Peter Apo	Hokule'a Film Excerpts from Polynesian Spafaring - Capt. Cook's Journey - 28 min. + 52 min.	Field Trip to Lanikuhonua (West Beach) Make styrofoam double hulled canoe	Waianae High School
Senior Lifesaving 9/8 - 10/5	Danny Padeken		Pool - Rescue buoy techniques Ocean Extrications	Waianae High School Pool Makaha Beach
First Aid for Certification (Multi-media Version)	10/9-20 Kam School Staff	Red Cross First Aid Book	Bandaging and Splinting Auto Extrication	
Orientation to Outrigger Canoe - parts, terminology, construction, theory, rigging, spiritual significance in Hawaiian Society (Kahuna Kalai Waa)	10/23 Stanley Park and Marine Trainees Philip Naone	Existing Handouts	Draw and Label Canoe Rigging and Lashing	Waianae High School 442 Building Cultural Center
Paddle Making	Stanley Park and Marine Trainees Orlino Abad Philip Naone			442 Building
Basic Sailing	Peter Apo Stanley Park and Marine Trainees	Existing Handouts	Construct and Sail Land Sallers Hokule'a Field Trip	Waianae High School Makaha Beach
Windspeed Seamanship	Doug Pendleton	Existing Handouts	Machias Field	Waianae High School
Rules of the Road - Aids to Navigation	Stanley Park David Hyman	Better Boating - Guide to Safety Afloat	Honolulu Harbor Field Trip	Waianae High School Honolulu Harbor
Land Sailing	Peter Apo			Dillingham Air Field
Voyaging Canoe Sailing	Lee Van Sequiera		Trip from Maui to Molokai (4 days, probably Christmas Vacation)	On board the Mo'olele

HO'I ANA I KE KAI (Return to the Sea)

This project is meeting the need to develop ways in which the School System can utilize the ocean environment as a teaching laboratory. Through an experiential approach, the student, who at present is the product of a predominantly land oriented society, can develop a new ocean awareness. Today Hawaiian children tend to view the ocean as a playground. This project will add an awareness of the sea as a valuable natural resource that, as well as our cane and pineapple fields, can produce food, jobs and income.

As the State educational system is based on "mainstream" values, there is a broad cultural chasm that separates the school and a large percentage of the population of the Waianae Coast. Unhappily, these cultural and values differences are reflected in statistics documenting scholastic achievement. It is felt, in an area where the majority of the students live and go to school within sight and sound of the sea, this project greatly increases the relevancy factor of the educational process and consequently improves scholastic achievement.

Ho'i Ana I Ke Kai is a cooperative effort of the following agencies:

Waianae Hawaiian Heritage Cultural Center - a private non-profit organization whose purpose is to provide community services and facilities that promote awareness of the Hawaiian heritage and culture through establishment of community based educational and recreational programs.

Sea Grant - a federally funded program concerned with the development and wise use of the ocean's resources. The Office of Sea Grant, National Oceanic and Atmospheric Administration administers the program and provides matching funds to colleges, universities and other groups and individuals carrying out research and educational projects in marine resources.

State Department of Education - The District Superintendent, Curriculum Specialists, several Teachers and Principals from the Leeward District have been closely involved in the planning of this project; also in the execution of a limited, short term pilot conducted at Waianae High School and Maili Elementary School from February 3 to March 17, 1978.

Each of these agencies contributes toward the planning, administration and execution of the project from their area of expertise. In addition to partially funding the program, Sea Grant has contributed the services of their Coordinator for Information and Education. She provides guidance in the technical and political aspects of Oceanography and Marine Affairs. The Waianae Hawaiian Heritage Cultural Center is handling the cultural and community development components of the program and supervises water activities. The major responsibility for classroom activities and curriculum development rests with the Department of Education. These various components are organized and overseen by a Marine Coordinator based in the Waianae Hawaiian Heritage Cultural Center.

In addition, Leeward Community College is involved in long range planning to explore the possibility of using Sea Grant funds to develop courses providing a natural progression for graduates of Ho'i Ana I Ke Kai's High School curriculum. Evaluation of the program will be done by the Office of Program Evaluation, Kamehameha Schools.

PROJECT GOALS

- (1) In a three step curriculum (Elementary, Intermediate, and Secondary) broadly labeled "Ocean Habitat" produce a student with a specific knowledge of the reef and deep water habitats, and how they can be best used to enhance the personal and professional lives of Hawaii's citizens.
- (2) Produce a local pool of persons who have the entry level knowledge and experience to take advantage of expanding opportunities in marine careers.
- (3) Increase the relevancy factor of education for the student whose culture does not embody "mainstream" values.
- (4) Develop curriculum materials in the following areas: Edible Reef Life, Deep Water Habitat, Basic Seamanship and Commercial Fishing.

PROJECT METHODS

Schools taking part in Year One (September '78 to June '79) are Mailli Elementary, Waianae Intermediate and Waianae High School. The programs are fully incorporated into the on-going school curricula.

All classes embody relevant aspects of water safety and good conservation practice. In addition, as the great majority of the students are Hawaiian or Part-Hawaiian, there is inclusion of materials to heighten awareness of the heroic voyages of the Polynesian People, and the Native Hawaiian's tradition of close interaction with the sea.

The approach is largely experiential, with approximately half of the course time spent within the ocean habitat. For example, the Elementary School child will walk the reef; at the Intermediate level the student will snorkle, and the Secondary student is getting "seatime" aboard appropriate ocean going craft.

Courses included in the pilot project, which was funded by a \$3000 grant from Sea Grant, were Commercial Fishing, a vocationally oriented course which gave the Secondary student entry level experience and knowledge of commercial bottom fishing (see attached newspaper article); and an Elementary level program, Edible Reef Life. This course included talks by an Hawaiian Kupuna on common Hawaiian limu, shell fish and reef fish, a reef walk, and limu was gathered and prepared for eating.

Kamehameha School's Office of Program Evaluation evaluated these projects and a copy of their detailed observations will be left with Lois Smouse, Charitable Foundations Office, Bishop Trust.

For the planners of this program, perhaps the most significant indications of the evaluation were the efforts to test the position that an experiential, "hands on" approach can make a dramatic difference in the Waianae High School student's ability to master learning material. To test this premise an existing Marine Science class was divided into two sections (1) full participants who took part in both class room and on the water activities and (2) those who were involved in only classroom lecture and laboratory activities. Using pre-/post testing it was found that the full participants more than doubled the gains of the second group; full participants making a knowledge gain of 26.6% and classroom participants 12.7%.

In September Ho'i Ana I Ke Kai received an allocation of \$15,102 from Sea Grant and over the past four months has been granted \$10,470 from the following local resources: Hawaiian Foundation, \$4000; Atherton Family Foundation, \$2500; George P. and Ida Tenny Castle Trust, \$1000 and McInerny Foundation, \$2970.

This amount covered our original projections (see attached budget). However, Federal response following a Sea Grant site visit, and inquiries from schools around the State indicating a strong interest in the possibilities of our program as a model for other culture based marine activities have changed our priorities regarding the writing of curriculum materials. As the Program progresses it becomes increasingly obvious that the DOE teachers and curriculum specialists involved do not have the time to document, write and produce culture based materials that will make the program exportable withing the near future. Thus, it is felt a half-time writer should join our staff from January 1 to June 31, 1979 at a salary of \$500 per month; adding another \$3000 to the budget. Our request to you is to partially fund this writer's salary.

Project goals are that the program be completely integrated into the Department of Education's Budget by the end of the initial three year period. Prospects for this appear to be bright. During a Spring '78 meeting of State Science Teachers, Charles Clark, Superintendent of the Department of Education, said, "Marine Education is going into the curricula of all schools in the United States, and I have been asked to head this effort on a national basis." He also indicated that within a few years he expects Hawaii to come into considerable Federal funds in this connection.

To assure adequate fiscal control the University of Hawaii Foundation has agreed to serve as fiscal administrator for any foundation grants.

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PERSONNEL	BUDGET		REQUESTED FROM FOUNDATIONS	IN KIND
	SEA GRANT			
* Principal Investigator (Sea Grant - Rose Pfund)	\$1602			
* Associate Investigators (Personnel Waianae Hawaiian)				
Heritage Culture Center				3000
Marine Coordinator (1/2 time)			6,270	
Publications and School Site Coordinator (1/2 time)	3600			
Clerk Typist	2000			
Evaluation Team (Kam Schools)				1125
DOE PERSONNEL				
Curriculum Specialist				1300
Teachers				4600
Principals				1020
NON DOE INSTRUCTORS				
Basic Seamanship	1000			
Commercial Fishing	1000			
Ocean Habitat		1000		
Reef Life	500			
PUBLICATIONS (Workbooks and Teacher's Manuals)				
Fishing Methods	500			
Basic Seamanship		1000		
Ocean Habitat		1000		
Reef Resources		500		
PERMANENT EQUIPMENT				
Sextant, compass, charts	200			
Snorkeling equipment		200		
EXPENDABLE SUPPLIES AND EQUIPMENT				
Bait, Hooks, Lures, line etc.	200			
Offices supplies, photo supplies etc.	300			
OTHER COSTS				
Boat Charter	3600			
Bus Rental	600			
TOTALS	15,102	\$9,970		\$11,045

Total - \$36,117

* As most Sea Grant projects are research oriented, program directors and supervisors are referred to as "investigators."

WAIANAE HAWAIIAN HERITAGE CULTURAL CENTER
85-067 Farrington Highway
Waianae, Hawaii 96792

PROJECT TITLE: Ho'i Ana I Ke Kai (Return To The Sea)

PRINCIPAL INVESTIGATOR: Rose T. Pfund / Sea Grant - U.H. Manoa

ASSOCIATE INVESTIGATORS: Peter K. Apo / Waianae Cultural Center
Isabel Hacksaylo / Sea Grant - U.H. Manoa

PARTICIPATING ORGANIZATIONS

Sea Grant / U.H. Manoa
Waianae Hawaiian Heritage Cultural Center
Department of Education / Leeward District
Kamehameha Schools Office of Program Evaluation

PARTICIPATING SCHOOLS

Waianae High School
Waianae Intermediate School
Mailli Elementary School

CONTRIBUTING ADMINISTRATORS

Rose T. Pfund	Sea Grant / U.H. Manoa	Principal Investigator
Peter Apo	Waianae Cultural Center	Associate Investigator
Isabel Hacksaylo	Sea Grant / U.H. Manoa	Associate Investigator
Dr. James Brough	Kamehameha Schools	Director Program Evaluation
Julie Abe	Kamehameha Schools	Evaluator
Violet Todoki	D.O.E. / Leeward Dist.	Curriculum Specialist
Robert Bakutis	Sea Grant / U.H. Manoa	Materials Development
Rella Sunn	Waianae Cultural Center	Education Aide

GOALS:

1. To develop a marine oriented Hawaiian culture based learning unit at Waianae High School for students who are not reached by the mainstream academic programs and to institutionalize the program within the State Department of Education via expansion of the pilot testing of the curriculum materials to other high schools with a similar socioeconomic profile.
2. To develop and incorporate Hawaiian culture based marine oriented curriculum materials into existing classes at Waianae Intermediate and Mailli Elementary schools and expand the pilot testing to other D.O.E. schools for eventual institutionalization.

OBJECTIVES:

1. To develop reproducible editions of student and teacher materials for the elementary, intermediate, and secondary level programs during school year 1978-79.
 2. To develop an evaluation instrument to measure cognitive gains and attitudinal changes in the participating students particularly at the secondary level during school year 1978-79.
 3. To encourage and effect increased parent participation as an important supportive element in the student learning process.
 4. To effect a cooperative working relationship between the D.O.E. and other existing educational resource organizations as a precedent for future cooperative ventures in the development of additional programs for application and pilot testing within the D.O.E.
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STATE OF HAWAII
DEPARTMENT OF EDUCATION — LEEWARD DISTRICT
OFFICE OF DISTRICT SUPERINTENDENT
94-366 PUPUPANI STREET
WAIPAHU, HAWAII 96797

November 15, 1977

To Whom it May Concern:

Subject: Hawaii Heritage Program

The educational plan being developed by the Hawaii Heritage Program offers promising instructional activities that appear to be compatible with the directions of the Leeward District schools.

I am looking forward to working with this organization to develop compatible instructional activities that would service our students. In reviewing the preliminary plans of the organization, I find that it offers promise of activities that can be further developed for the good of our students. This organization has already started working with a number of our schools in a variety of activities.

I am offering the support of the Leeward District schools in finding ways to cooperatively implement the number of activities planned by this organization. It is to be understood, however, that activities accepted by the Department will be done after a careful study to see that these studies are in fact compatible with the instructional activities of the respective schools. I am encouraging support of the educational plans of this organization and look forward to working with them in the near future.

Sincerely yours,

LIBERATO C. VIDUYA, JR.
District Superintendent

TITLE

Ho'i Ana I Ke Kai--Return to the Sea (ET/E-7) ✓

✓ PRINCIPAL INVESTIGATOR

Rose T. Pfund ✓

✓ DURATION

Sea Grant Year 11 through Year 13 ✓

✓ MOTIVATION

"...A child's adaptation to the school system is influenced not only by his parents and their techniques of child training, but by the whole sociocultural environment in which he lives. For the lifestyle [of the Hawaiians] to change toward the lifestyle of the middle class would take a matter of generations. Therefore, it seems much more practical to change the schools of the area which are more amenable to change." (Gallimore and Howard, 1968)

The quotation from Gallimore and Howard summarizes the plight of the children of Nanakuli and the Waianae coast. In the most comprehensive study of the "Hawaiian lifestyle," Gallimore and Howard call for a change in the school system rather than attempt to change the lifestyle of the people of Waianae-Nanakuli. The real question raised, not only by Gallimore and Howard, but others as well, is, does the mainstream culture, the public culture, have the right to enginner a change in the lifestyle of a people against their will (Lind, 1938)?

The basis of the black movement was for recognition as equals within the public culture. The Hawaiian case is not quite so simple. The people wish to maintain their cultural identity as well as their racial identity.

The challenge for education of Hawaiian children is complicated by the necessity for providing them with the skills needed to survive in today's fast moving world, but providing these skills within the context of their cultural values.

In brief, the carrot and sticks used by the Hawaiian parents to discipline their children, according to Gallimore and Howard, are:

- ✓ ①. Older children teach young children their chores without exercising authority; parents do not normally serve this teaching function.
- ✓ ②. Hawaiian parents view their children as "good" if they are complaisant and do not "talk back" to them.
- ✓ ③. Parents are non-verbal in expressing their approval of their children and only very rarely express approval or appreciation.

4. A pat on the shoulder denotes praise (something which is rarely done).
5. Parents sometimes tease children about not doing or doing their chores--children appreciate this.
6. Deprivation of privileges is the "big stick."
7. Parents do not have any influence on outside-the-home behavior of their children and do not really know what their children are up to.
8. Children do not consult their parents.
9. Children view permission to "go out" and receiving money to go to a movie, etc., as evidence of parental love.

The profile above clearly indicates basic conflicts with the normal classroom environment. The teacher who is giving directions is an adult who does not provide any real direction to the child at home. The expectations of teachers that children will participate in class discussion are not understood by the Hawaiian child who has been taught to be seen but not heard. The teacher does not have any material privileges to withhold, i.e., movie money.

But there are positive aspects of the profile that can be utilized in the classroom. Older or faster children can help teach their peers. Real reward such as a field trip to be taken at no cost to the student, or desired activity could be withheld as punishment. Teachers should pat the shoulders of the children to indicate approval and appreciation. Peer groups can be established through which children can express their opinions under the leadership of a peer as a bridge to development of individual confidence in "speaking up."

The basic educational goals being developed under the proposed project, Ho'i Ana I Ke Kai, utilizes the positive aspects of the culture of the Hawaiian child. In addition, the activities being offered to the student, being marine-oriented, provide an opportunity to bring an enjoyable and loved environment into the school setting--an environment which is too often merely tolerated.

We proposed to develop and establish within the curriculum offerings at Waianae High School an alternative program for "Hawaiian students" who are not academically motivated. (Hawaiian is defined as one who lives the lifestyle of the rural Hawaiian, rather than having Hawaiian bloodlines.) As noted in the progress report, 28 students are enrolled in the Ho'i Ana I Ke Kai program at Waianae High School. In addition, their parents have formed a support group and are kept informed of the progress of their children at regular monthly meetings. We are proposing to develop curriculum materials which will be replicable for use in other schools in similar settings.)

GOALS

The long-range goal for this project is to develop an educational program to provide students who are not reached by the mainstream academic programs with a marine-oriented, culture-based learning experience. The null hypothesis being tested is that it is possible to utilize a culturally important value--the ocean--and to develop educational programs which are based on that cultural value to motivate students to view schooling as a viable option and to change the attitudes of both the students and their parents toward the school.

Year 12

1. To develop reproducible editions of student and teacher materials for the elementary and secondary programs developed during Year 11
2. To institutionalize the programs within the State Department of Education and to expand the pilot testing of the curriculum materials to another high school with a similar socioeconomic profile as the pilot school, Waianae High School. The elementary program will be expanded to the other 4th grade classes at Maile Elementary School
3. To develop an evaluation instrument to measure cognitive gains and attitudinal changes in the students who are participants of this program at the secondary level, especially

Year 13

It is anticipated that a follow-through effort to track students who participated in this program will be done to evaluate the extent of the motivational influence of this project. The final summative evaluation will be completed in Year 13.

METHODS

The elementary school activities

Begun with early start funding in spring 1978, the elementary school portion of the Ho'i Ana I Ke Kai program began with a concentration on the edible reef resources which included classroom demonstration and lecture and a trip to the tidepools and reef.

Three teachers of Maile Elementary School have continued work begun in the spring and have developed materials which will be pilot-tested in the spring of 1979. They will note successes and failures and will revise the curriculum materials during the summer. The second edition materials will then be duplicated for second pilot-testing in fall 1979 in all four fourth-grade classes at Maile Elementary. The third edition of the curriculum materials will be available for distribution to other schools.

The secondary activities

Ho'i Ana I Ke Kai has developed into a year-long alternative program out of twofold necessity: (1) the need to provide students with basic skills and safety requirements for the second semester's activities and (2) the need to meet scheduling requirements of Waianae High School. Course content includes the following:

1. Senior life saving
2. Red Cross certification
3. Rules of the road (boating safety)
4. Aids to navigation
5. Migratory history of Polynesia
6. Orientation to the outrigger canoe
7. Paddle-making

8. Basic sailing
9. Voyaging canoe sailing
10. Habitats of commercial fish species; identification of common commercial species
11. Baits and bait-cutting, hook tying
12. Deepsea fishing
13. Fish auction--a field trip
14. Marketing the catch
15. Fish and Game Laws

These components will be taught over two semesters. Much of the materials used in the classes are already in printed form. However, students have a great deal of difficulty with the level of the usage and vocabulary. Hence, a curriculum consultant will work with instructors and resource persons in simplifying the language and adapting the teaching materials so that they are more easily understood by the students. The revisions will be based on the student reactions during the first semester when first drafts will be written. The materials on fishing methodology and fish species and habitat to be used in the second semester are currently being transcribed from tapes and will be edited by the curriculum consultant.

In Year 12, classes will be supplemented by experts who will provide information directly to the students through lectures and demonstrations. The currently used non-competitive style of teaching will continue to be used because it utilizes a basic cultural characteristic of Hawaiian children and youth. The funding provided will allow the class to go on field trips and provide hands-on experiences. The budget also provides for two fishing trips for the entire class.

PROGRESS

Twenty-eight students are enrolled in the program at Waianae High School. All of the students have been chronic absentees from the regular school program and all but four have a grade point average of 1.0 or lower. Most of the students (85 percent) are part Hawaiian, but more important, nearly all of them come from home backgrounds which espouse the traditional "Hawaiian style" of life which pretty much includes the profile outlined in the "Motivation" section.

The daily absenteeism has averaged about 10 percent, but at a parent and student meeting, all agreed that any student who had three unexcused absences would be dropped from the program.

To provide a support base for their children in the program, the parents of the students have formed an advisory group. They meet monthly and are apprised of the progress of their children. Problems within the program are also shared with them.

The program, while administered through the University of Hawaii Sea Grant College Program office, is managed by a site coordinator at Waianae High School. The resource persons, who are providing their services as in-kind support, are staff of the Waianae Cultural Heritage Center and Alulike, the non-profit native Hawaiian organization which administers CETA funding for native Hawaiians.

As of November 1978, the class has had lectures and media presentations of the historic and cultural orientation of Hawaiians to the sea, and finished a water safety course, the Red Cross First Aid course, and the boating skills course taught by the Coast Guard Auxiliary.

The students will obtain two credits towards science upon completion of the two semesters. The students have taken a pre-test administered by the evaluation staff of Kamehameha Schools. Their accomplishment to date includes 26 of the 28 students receiving their certification for the advanced life saving training and seven receiving First Aid certification. Students have not been tested on the boating skills and seamanship course, as yet. Because of reading comprehension difficulties, the students are, at this writing, involved in a tutorial to review the classwork taught by the volunteer instructor from the Coast Guard Auxiliary. Experience has shown that for successful integration of the curriculum into the regular program, the school must provide the students under this program with a regular certificated classroom and teacher. Meetings are currently being held with the District Superintendent of Schools to work out methods to accomplish this.

The development evaluation as well as the final summative evaluation will be done under the direction of the Kamehameha Schools Office of Evaluation. This service is provided as in-kind support by the Kamehameha Schools.

The elementary program has progressed strictly on teacher involvement and initiative. In consultation with a seasoned marine biology teacher, who is providing her time at no cost to this program, the three elementary teachers have developed materials which will be tested in one 4th grade classroom at Maile Elementary School during the spring semester. A revision of the draft materials will be done during the summer based on feedback from the evaluation team and the teacher who will be pilot-testing the materials.

REFERENCES

- Gallimore, R., and A. Howard. 1968. *Studies in a Hawaiian Community: Na Makamaka O Nanakuli*. Bernice P. Bishop Museum. Honolulu, Hawaii.
- Lind, A.W. 1938. *An Island Community: Ecological Succession in Hawaii*. Chicago: Chicago Press.