



Hope for Kids Theory of Change
Ho'opili 'Ike (Connecting knowledge):
The Rationale and Research Linking
the Core Elements with Long-term Outcomes

This is a BRIEF summary of the rationale and research underlying each of the Hope for Kids Core Elements. It also provides short definitions of key terms. It is NOT intended to be a complete or encyclopedic review of all possible related research. It is intended to show that the Core Elements do have a research base and that the research supports their logical connections to the long-term outcomes for the participants, for the educational system, and for the community. Although treated separately, the Core Elements should be seen as overlapping and interconnected. 'Ōlelo Hawai'i (Hawaiian language) terms and concepts are used throughout to honor the close connection of the Hope for Kids initiative to its Hawaiian home.

The context and the Core Elements of the Hope for Kids initiative are portrayed graphically in the two attached Figures. One shows the Core Elements on a Hawaiian star compass and the other, a canoe (wa'a) setting out on a Voyage of Hope. Why were these metaphors chosen? The compass is a universal tool to express orientation and direction. The Hawaiian Star compass is how we orient our wa'a to the course—it is the fixed horizon upon which we make sense of shifting stars and moving currents. With the compass to guide us we are united in thought and understanding, this enables us to move forward and find our destinations with confidence. Putting aloha (love, caring) at the center of our compass is a strong message that this is the center—the heart—of our work with keiki (children). Using a Hawaiian compass reminds us that we are of Hawai'i, inspired daily by her breath and beauty.

The wa'a has often been compared to an island, with a select crew and limited resources. As we care for our wa'a, we also care for our 'aina (land, place). A wa'a can be a child, a family, an organization, a community, an island, or a planet—for all are vessels that are self-contained yet wholly interconnected. And just as a child, or a family, or a community is continuously growing, changing and evolving, so too is a wa'a meant for movement, for sailing the open seas, for voyaging beyond what is seen and known, and for ultimately, as the figure depicts, returning home.

Voyaging begins with a vision, a vision that shines like a beacon of hope and possibility, inviting us to dream of islands yet to be discovered, lessons to be learned, and life-giving connections to be forged. Where despair would leave a void, voyaging brings new hope, challenging the human spirit to overcome the kaumaha (weight) of our struggles and limitations. The vision brings hope, but it is faith (connection to something greater than oneself) and hard work that transforms possibility to reality and gives hope substance. It is when each member on a wa'a understands and fulfills their kuleana (responsibility) together that true movement is possible.

And so we have embarked on this voyage together, each organization like a wa'a, and yet we are heading in the same direction. We might rightly call this a voyage of hope, for it is bringing hope not only to this generation, but also preserving hope as a possibility for the many generations to come, as global citizens of an interdependent world.

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| Context | Hands-on, community-based education that is structured, relevant and intentional. | Long-term Outcome | Kuleana to community |
| Research | | Definitions of Key Terms | |

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| Core Element | Aloha Provide opportunities for meaningful engagement with an adult who shares of their 'ike and aloha (knowledgeable, caring, and affirming). | Long-term Outcome | Living Aloha |
| Research | | Definitions of Key Terms | |
| <p>Data gathered over six years at Kamehameha Schools' Nā Lei Na'auao schools indicate that students and parents identified the conscious practice of aloha as the primary change agent in education. This <i>Education with Aloha</i> framework includes:</p> <p>A. Cultivating and growing aloha as a foundation for curriculum. b. Creating familial relationships among all school community members reflected in the utilization of family terms and treatment of each other as 'ohana. C. Personalized, individual attention and care extending well beyond usual teacher/student or school/ parent relationships" (Nā Lau Lama Community Report Executive Summary, n.d.).</p> <p>Like many terms in 'olelo Hawai'i (the Hawaiian language), 'ike has many meanings and connotations, but the central construct is knowledge, a central value in Hawaiian culture. In the second edition of the guidebook for educators, <i>Nā Honua Maui 'Ola, Hawaiian Cultural Pathways for Healthy and Responsive Learning Environments</i>) the chapters are all about cultural pathways (Nā 'Ala 'Ike - the paths of knowledge) and all start with 'ike: 'Ike Pilina (Relationship Pathway), 'Ike 'Ōlelo (Language pathway), etc. (http://laura-kinoshita.com/wp-content/uploads/2010/12/NHMO.pdf)</p> <p>One of the core values of the Kamehameha Schools is 'Ike pono, which is defined as: 'Ike: To know, to see, to feel, to understand, to comprehend, to recognize; Pono: righteous, appropriate, moral, goodness, proper, fair. It urges us to integrate our intellect and our intuition. (http://apps.ksbe.edu/cphc/ike-nohona-hawaii)</p> <p>In its Values statement, the Polynesian Voyaging Society includes both</p> | | <p>Aloha love, affection, compassion, mercy, sympathy, pity, kindness, sentiment, grace, charity; greeting, salutation, regards; to show kindness, mercy, pity, charity, affection; to venerate; to remember with affection; to greet, hail. (http://wehewehe.org)</p> <p>'Ike To see, know, feel, recognize, perceive, experience, be aware, understand; also knowledge, awareness, understanding, recognition, comprehension and hence learning; sense, as of hearing or sight; sensory, perceptive, vision. (http://wehewehe.org)</p> <p>Knowledgeable Possessing or showing knowledge or intelligence; perceptive and well-informed ("Knowledgeable," n.d.).</p> <p>Caring Feeling and exhibiting concern and empathy for others ("Caring," n.d.).</p> | |

‘Imi ‘Ike: *To seek knowledge*, and

Aloha: *To love*.

(http://pvs.kcc.hawaii.edu/about_pvs.html)

Emmy Werner was one of the early scientists to use the term “**resilience**” in the 1970s. She studied a cohort of children from Kaua‘i, Hawai‘i. Kaua‘i was quite poor and many of the children in the study grew up with alcoholic or mentally ill parents. Many of the parents were also out of work. Werner noted that of the children who grew up in these very bad situations, two-thirds exhibited destructive behaviors in their later teen years, such as chronic unemployment, substance abuse, and out-of-wedlock births (in case of teenage girls). However one-third of these youngsters did not exhibit destructive behaviors. Werner called the latter group ‘resilient’. Resilient children and their families had traits that made them different from non-resilient children and families. ***“For the resilient youngster a special teacher was not just an instructor for academic skills, but also a confidant and positive role model”*** (Werner, 1971).

Relationships that provide care and support, create love and trust, and offer encouragement—both within and outside the family—develop resilience (Benard, 1991). This idea of support and encouragement is what the concept of **affirming** is all about.

Research on “**mentoring**” also shows the positive influence of a knowledgeable and caring older person on many aspects of youth development. A Research Brief published by Child Trends and titled “Mentoring: A Key Resource for Promoting Positive Youth Development” found that youth who participate in mentoring relationships experience a number of positive benefits. In terms of educational achievement, mentored youth have better attendance; a better chance of going on to higher education; and better attitudes toward school. In terms of health and safety, mentoring appears to help prevent substance abuse and reduce some negative youth behaviors.

On the social and emotional development front, taking part in mentoring promotes positive social attitudes and relationships. Mentored youth tend to trust their parents more and communicate better with them. (Lerner, Brittan, and Fay, 2007).

Hope theory was derived from Charles Snyder’s ideas of positive psychology (Snyder, 1994). According to hope theory, hope reflects individuals’ perceptions regarding

Mentor

The organization Mentor - National Mentoring Partnership defines a mentor as:

...a caring, adult friend who devotes time to a young person. Although mentors can fill any number of different roles, all mentors have the same goal in common: to help young people achieve their potential and discover their strengths.

(http://www.mentoring.org/news_and_research/research_and_studies/research_categories)

Resilience (or resiliency)

On the PBS series This Emotional Life resilience is defined as:

...the capacity to withstand stress and catastrophe. Psychologists have long recognized the capabilities of humans to adapt and overcome risk and adversity. Individuals and communities are able to rebuild their lives even after devastating tragedies. Being resilient doesn’t mean going through life without experiencing stress and pain. People feel grief, sadness, and a range of other emotions after adversity and loss. The road to resilience lies in working through the emotions and effects of stress and painful events. Resilience is also not something that you’re either born with or not. Resilience develops as people grow up and gain better thinking and self-management skills and more knowledge. Resilience also comes from supportive relationships with parents, peers and others, as well as cultural beliefs and traditions that help people cope with the inevitable bumps in life. Resilience is found in a variety of

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| <p>their ability to clearly conceptualize their goals, develop the specific strategies to reach those goals (i.e., pathways thinking), and initiate and sustain the activities in support of those strategies (i.e., agency thinking). According to hope theory, a goal can be anything that an individual desires to experience, create, obtain, accomplish, or become. A goal may be related to grades in school or activities outside of school, but the important thing is that the goal has value to the individual. (Snyder, 1994).</p> | <p>behaviors, thoughts, and actions that can be learned and developed across the life span (http://www.pbs.org/thisemotionallife/topic/resilience/what-resilience).</p> <p>Affirming While the term “affirming” is most commonly used to mean positively asserting something, it is used here like “life-affirming:” having or showing a positive outlook that encourages optimism about life. (http://www.collinsdictionary.com/dictionary/english/life-affirming).</p> <p>Hope ...is the longing or desire for something accompanied by the belief in the possibility of its occurrence: Hopelessness or despair are often regarded as the opposites of hope (“Hope,” n.d.).</p> |
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| Core Element | Kuleana Believe in the potential of children and set high expectations for their performance. | Long-term Outcome | Making Changes |
| Research | | Definitions of Key Terms | |
| <p>Hawaiian perceptions of this element (described by Puku’i, Haertig, and Lee in <i>Nana i ke Kumu</i>) focus on training, mastery and kuleana. Keiki are identified by their gifts, are given kuleana based on their gifts, and knowledge is bestowed in ‘stepped’ mastery. "High expectations" are shown through systems of kuleana and ho’ike, reinforcing community-mindedness in the functionality of that which is expected. (Puku’i, Haertig and Lee, 1972)</p> <p>Activities involved are intended to be challenging, but not insurmountable. High expectations for performance at school, home, and in the community are linked to the development of resilience, performance, and persistence. Csikszentmihaly also</p> | | <p>Kuleana Right, privilege, concern, responsibility, title, business, property, estate, portion, jurisdiction, authority, liability, interest, claim, ownership, tenure, affair, province; reason, cause, function, justification (http://wehewehe.org)</p> <p>High expectations ...the belief that someone will or should achieve</p> | |

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| <p>emphasizes the importance of relevance in education. He says that striving for something is the nearest equivalent of happiness. (Csikszentmihaly, 1988, 1990).</p> <p>The learning environment should invoke among students a sense of high expectations and a proclivity to persist in solving problems (Cf. Deci and Ryan, 1985; Dweck, 2006; Weiner, 1980).</p> <p>The most effective urban educators, in every discipline at every grade level, connect the academic rigor of content areas with their students' lives (Duncan-Andrade, 2007).</p> | <p>something significant or positive (Cf. http://oxforddictionaries.com/definition/english/expectation)</p> <p>Mastery comprehensive knowledge and/or skill in a subject; the action or process of mastering a subject.</p> |
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| Core Element | Ho'olako Assist children in the development of life skills . | Long-term Outcome | Applying Skills |
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| Research | | Definitions of Key Terms | |
| | <p>Kamehameha Schools' Research and Evaluation Division completed a study in 2008 titled, "Why Hawai'i Needs Public Charter Schools: The Positive Effects of Hawaiian-Focused Charter Schools on Student Outcomes. Positive results included strong student engagement and increased academic achievement. (http://www.ksbe.edu/spi/PDFS/Reports/K-12/2008-09_HLD_Meeting_Student_outcomes.pdf)</p> <p>Based on this kind of research, Kamehameha supports Hawaiian-focused public charter schools through its Ho'olako Like Department which provides per student funding, leadership development, instructional improvement programs and facilities, planning, and advocacy support to supplement existing programs at the charter schools and to enhance the quality of education in Hawai'i.</p> <p>There are 17 Hawaiian-focused public charter schools in Hawai'i. This diverse group of schools shares a common focus, where instruction and learning are grounded in the values, norms, knowledge, beliefs, practices and language that are the foundation of Native Hawaiian culture.</p> <p>Characteristics of a Hawaiian-focused public charter school in Hawai'i:</p> <ul style="list-style-type: none"> - Approximately 90 percent of students served are of Hawaiian ancestry; - Approximately 62 percent of students served are socioeconomically disadvantaged children; | <p>Lako, ho'olako Supply, provisions, gear, fixtures, plenty; wealth; well-supplied, well-furnished, well-equipped; rich, prosperous. ho'o.lako: To supply, equip, provide, furnish, enrich. (http://wehewehe.org)</p> <p>Hiki Can, may; to be able; ability; possible; All right, O.K. (in sense of "able to do"), certainly, surely (used alone or preceding nō). (http://wehewehe.org)</p> <p>Life skills Skills that help one navigate life.</p> <p>Life skills are defined as psychosocial abilities for adaptive and positive behavior that enable individuals to deal effectively with the demands and challenges of everyday life. They are loosely grouped into three broad categories of skills:</p> | |

- The faculty and staff are passionate and deeply committed;
 - Innovative teaching methods and curriculum that are grounded in Hawaiian values, culture and practices;
 - Student-centered, place-based and project-based learning designed to engage young hearts and minds;
 - Small student-teacher ratios and trusting 'ohana climate;
 - Meet the individual needs of students via small student:teacher ratios;
 - Are catalysts for community change and their commitment to their community;
 - Willing to take risks to achieve greater well-being and educational excellence.
- (http://www.ksbe.edu/cei/index_dev.php/site/programs/all/charter_schools).

In Native Hawaiian perspectives, educators apply a multistep process to assess and respond to learners' aptitudes, current levels of achievement, and natural abilities to provide the necessary training to progress in their paths of learning. Should a particular path prove a poor choice, Native Hawaiian custom allowed for assisting the learner to choose another (Beniamina 2010; Pukui, Haertig, and Lee 2001). In her work on "Education with Aloha" Kahakalau explains that the life skills gained through traditional Native Hawaiian pedagogy include those required in today's workforce: critical thinking and problem-solving, an ability to synthesize information, well-developed communication skills, and the ability to work effectively on a team (for example, see Tibbetts, Kahakalau, and Johnson 2007, 150–151). (Tibbetts, K., Adams, K., Cummings, C., Nielson, J., and Yamashiro, G. (2012). (<http://www.ksbe.edu/spi/PDFS/PathwaysProsperity.pdf>).

Much research on life skills education has come from the drug prevention and health promotion fields. An international group (UNICEF) using this approach to combat HIV/AIDS and other drug related outcomes cites Dr. Gilbert Botvin's work:

Teachers must be aware of the wide range of behaviors in adolescents that are part of the natural process of separating from parents, developing a sense of autonomy and independence, and acquiring some of the skills necessary for functioning effectively in the adult world. Profound cognitive changes occur during the beginning of adolescence that significantly alter the adolescent's thinking and view of the world.

Interactive teaching strategies such as role-play, discussions and small group activities

cognitive skills for analyzing and using information, personal skills for developing personal agency and managing oneself, and inter-personal skills for communicating and interacting effectively with others.

(http://www.unicef.org/lifeskills/index_7308.html)

Personal agency

The extent to which individuals believe that they can control events that affect them.

(<http://www.educationcounts.govt.nz/publications/schooling/student-engagement-in-the-middle-years-of-schooling-years-7-10-a-literature-review/glossary>)

Self-efficacy

The "[self] perceived ability to learn and carry out a task or set of behaviors at an identified, optimal level of performance" (Tyler & Boelter, 2008, p.29).

that promote active participation of students, and programs using these techniques have been found to be more effective than didactic teaching strategies and that a major emphasis in teacher training and support should be on interactive teaching techniques.

(http://www.unicef.org/lifeskills/index_7308.html)

See an extensive listing of Botvin's evaluation studies at:

(http://www.lifeskillstraining.com/evaluation_detail.php?id=33)

Dr. Robert Epstein has espoused a different approach to adolescence, one which emphasizes building upon the skills and competencies which they already possess and which are often overlooked by parents and educators.

"We came up with 14 areas of competency – such as interpersonal skills, handling responsibility, leadership, - and administered tests to adults and teens in several cities around the country. We found that teens were as competent or nearly as competent as adults in all 14 areas. But when adults estimate how teens will score, their estimates are dramatically below what the teens actually score.... I advocate a competency-based system that focuses on the abilities of the individual." (Marano, 2007, pp. 88-89).

See more of Epstein's research at:

<http://drrobertepstein.com/pdf/Epstein%20-%20The%20Case%20Against%20Adolescence%20-%20Q&A.pdf>

and <http://howadultareyou.com>

for assessment of life skills.

Another area of research supporting life skills education involves the concepts of **personal agency** and **self efficacy**.

A program that provides meaningful opportunities that allow students to experience a sense of personal agency is likely to lead to an increased sense of hope (Gable, Reis, Impett, & Asher, 2004).

Adolescence is often a stressful period during development because it involves a pivotal transition from childhood dependency to adulthood independence and self-sufficiency (Smith, Cowie, & Blades, 1998). One major challenge that adolescents

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| <p>encounter during their teenage years involves acquiring a sense of personal agency in what often seems to be a recalcitrant world. Personal agency refers to one’s capability to originate and direct actions for given purposes. It is influenced by the belief in one’s effectiveness in performing specific tasks, which is termed self- efficacy, as well as by one’s actual skill (Zimmerman and Cleary, 2006, p. 45).</p> <p>Although the importance of self-efficacy is now well established, the magnitude of its effect varies considerably depending on other variables. Adolescents’ sense of personal efficacy is especially influenced by their capability to self-regulate their functioning, such as setting optimal goals, implementing effective strategies, self-monitoring accurately, self-evaluating using appropriate criteria, and attributing causation to adaptable processes. When training interventions are designed to enhance these and other academic self-regulatory functions, adolescents are significantly empowered to make this vital developmental transition (Zimmerman and Cleary, 2006, p. 65).</p> | |
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| Core Element | Mēheuheu Provide opportunities to celebrate and find strength in one’s cultural identity and/or use culture for learning | Long-term Outcome | Cultural Vibrancy |
| Research | | Definitions of Key Terms | |
| <p>Scholars and educators alike argue that children’s learning is more effective if it occurs in cultural context, that is, with attention to cultural values and behaviors, learning styles, and the context of place and the physical environment.</p> <p>Studies also show that some of the biggest effects of culture-based education include increased children’s self-esteem and resiliency, which in turn lead to positive student performance and behavior.</p> <p>Consistent with the findings presented in this community report, culturally relevant schools typically demonstrate solid relationships with and support from surrounding communities and families. Strong links between home, neighborhoods, and school are key features of effective educational programming in indigenous communities. (Nā Lau Lama Community Report) (http://www.ksbe.edu/spi/PDFS/Reports/Na-Lau-</p> | | <p>Mēheuheu (Hawaiian) culture; custom, beaten path.</p> <p>Culture: ...an integrated system of learned behavior patterns which are characteristic of the members of a society and which are not a result of biological inheritance (Hoebel, 1966).</p> <p>For the purposes of the Intercultural Studies Project, culture is defined as the shared patterns of behaviors and interactions, cognitive constructs, and affective understanding that are</p> | |

[Lama/Executive%20Summary%20Final.pdf](#)

This can entail:

- 1) Teaching cultural knowledge, such as 'oli, hula, etc,
- 2) Respect /appreciation for cultural diversity;
- 3) Cultural pedagogy

An established cultural identity has also been linked with positive outcomes in areas such as health and education. (Durie et al, 2002; Durie, 1999).

Culturally Relevant Teaching is a pedagogy that recognizes the diverse cultural characteristics of students from different ethnic backgrounds and adjusts teaching methods to account for this diversity (Gay, 2010.).

Culturally relevant teaching is one “that empowers students intellectually, socially, emotionally and politically by using cultural referents to impart knowledge, skills and attitudes. (Ladson-Billings, 1994). The Dreamkeepers: Successful Teachers of African American Children). Project Venture works with youth to plan, implement, and debrief in specific ways that use the experiences as metaphors for life.

James Banks is an influential thinker, researcher and educator with an expansive theory of cultural identity and multicultural education. He believes that “...cultural, national, and global identifications are interrelated in a developmental way, and that students cannot develop thoughtful and clarified national identifications until they have reflective and clarified cultural identifications, and that they cannot develop a global or cosmopolitan identification until they have acquired a reflective national identification. (Banks, 2004, p.295).

James Banks elaborates upon six stages of cultural identification that an individual progresses through in a successful multicultural education program:

Stage 1: Cultural Psychological Captivity

Stage 2: Cultural Encapsulation

Stage 3: Cultural Identity Clarification

Stage 4: Biculturalism

Stage 5: Multiculturalism and Reflective Nationalism

learned through a process of socialization. These shared patterns identify the members of a culture group while also distinguishing those of another group. (Center for Advanced research on Language Acquisition).

(<http://www.carla.umn.edu/culture/definitions.html>)

Most social scientists today view culture as consisting primarily of the symbolic, ideational, and intangible aspects of human societies. The essence of a culture is not its artifacts, tools, or other tangible cultural elements but how the members of the group interpret, use, and perceive them. It is the values, symbols, interpretations, and perspectives that distinguish one people from another in modernized societies; it is not material objects and other tangible aspects of human societies. People within a culture usually interpret the meaning of symbols, artifacts, and behaviors in the same or in similar ways.

(Banks, Banks, and McGee, 1989).

Cultural identity:

Given the definitions above of “culture,” the definition of cultural identity is simply ...a sense of belonging to a particular cultural or ethnic group. (Cf.

http://wiki.answers.com/Q/What_is_the_definition_of_Cultural_Identity_in_education).

Cultural continuum

A seamless pathway of generations rooted in a particular culture—stretching back to the generations past, converging in the present, and

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| <p>Stage 6: Globalism and Global Competency (Cf. Banks, 2004, p. 296)</p> | <p>moving forward to the generations yet unborn.</p> <p><u>Cultural vibrancy</u> The flourishing essence or energy of a living culture as it is perpetuated by its people.</p> |
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| Core Element | Mālama ‘Āina Provide opportunities to learn outdoors, fostering the development of aloha and mālama ‘āina | Long-term Outcome | Kinship with ‘āina |
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| Research | | Definitions of Key Terms | |
| <p>There are documented academic as well as socio- emotional benefits of outdoor learning environments. (American Institutes for Research and Lieberman, Gerald A.; and Linda L. Hoody).</p> <p>Children who experience school grounds with diverse natural settings are more physically active, more aware of nutrition, more civil to one another, and more creative. One of the major benefits of green school grounds is increased involvement by adults and members of the nearby community, from helping with gardens to enriching the lifescape of the school grounds. (Bell, Anne C.; and Janet E. Dymont).</p> <p>SAMHSA’s National Registry of Evidence-based Programs and Practices (NREPP) describes Project Venture (PV) as an outdoor experiential youth development program designed primarily for 5th- to 8th-grade American Indian youth. It is designed to reconnect Native youth with nature through sequenced initiatives and outdoor activities involving experiential learning. PV actively engages youth in a proven and effective method of developing life skills while reinforcing traditional Native values such as family, service learning and appreciation for the natural world http://www.niylp.org/programs.htm “Children who spend more time outside before age 11 are much more likely to grow up to be environmentally committed as adults,” said Larry Schweiger, President and CEO of the National Wildlife Federation.</p> | | <p>‘Āina: Land, earth... “Ua mau ke ea o ka ‘āina i ka pono” (motto of Hawai‘i), “the life of the land is preserved in righteousness.” (Hawaiian Dictionary; Ka puke wehewehe a Pukui/Elbert), retrieved from http://wehewehe.org, May 16, 2013).</p> <p>George Kanahale explains the importance of the concept of ‘āina, not just the word, to Hawaiians: “In its most generic sense, place meant for the Hawaiians of old land, or ‘āina, literally, that which feeds. The word is derived from the noun or verb ‘ai, meaning food or to eat....‘Āina also meant earth. (Kanahale, 1986, p. 184-185).</p> <p>Kanahale continues, “ An islander’s sense of place embraces the continuum of land and sea.... The concept of the continuum is clearly demonstrated in the ahupua‘a..., a large division of land in old Hawai‘i , which extended from the central mountains to a beach and beyond that into the sea (Kanahale, 1986, pp. 188, 191).</p> | |

Nature is important to children's development in every major way — intellectually, emotionally, socially, spiritually, and physically. In his newest book, *Building for Life: Designing and Understanding the Human-Nature Connection* (Island Press, 2005), Dr. Stephen R. Kellert of Yale University devotes a chapter to the subject of "Nature and Childhood Development." Combining his original research with well-documented references to the research of others, this chapter is a powerful synthesis of what we know, and what we do not know, about the importance of nature to children's healthy development. Kellert states, "Play in nature, particularly during the critical period of middle childhood, appears to be an especially important time for developing the capacities for creativity, problem-solving, and emotional and intellectual development." He includes research to indicate optimal learning opportunities at age-appropriate times and differentiates between indirect, vicarious, and direct experiences with nature — with the latter less and less available to children. He urges designers, developers, educators, political leaders and citizens throughout society to make changes in our modern built environments to provide children with positive contact with nature — where children live, play, and learn. (Original Research and Synthesis)

Kellert, Stephen R. "Nature and Childhood Development." In *Building for Life: Designing and Understanding the Human-Nature Connection*. Washington, D.C.: Island Press, 2005. Full

book available via Amazon.com and other commercial sources.

http://www.cnaturenet.org/02_rsrch_studies/PDFs/Kellert_BuildingforLife.pdf

The focus of this recent research from Dr. Louise Chawla is on those factors that contribute to individuals choosing to take action to benefit the environment when they are adults. This is a reprise of earlier research by Dr. Chawla in the 1990s (*Journal of Environmental Education*, 1998, 1999). Positive, direct experience in the out-of-doors and being taken outdoors by someone close to the child — a parent, grandparent, or other trusted guardian — are the two most significant contributing factors. While lifelong activism is the primary focus of Dr. Chawla's inquiry, as reported in this article, her well-documented study includes citations and explanations of many additional benefits to children from early experiences in the out-of-doors. Creativity, physical competence, social skills, environmental knowledge, confidence, and problem-solving ability are among those benefits to children's development.

Mālama 'āina

A Hawaiian term frequently used in conjunction with 'āina is mālama (to care for, e.g., mālama 'āina).

Steward/ Stewardship:

Stewardship is the ethic ... that embodies the responsible planning and management of resources. The concepts of stewardship can be applied to the environment, economics, health, property, information, religion etc. Stewardship is often linked to the principles of sustainability. (<http://www.merriam-webster.com/dictionary/stewardship>).

One of the moral imperatives that emanates from the omnipresence of the divine in nature is respect for nature.... While Hawaiians of old may not have thought of respect for nature in such global terms, they did show respect in many ways: by not intruding noisily in a forest in the morning, or by carelessly trampling upon ferns and shrubs, or by polluting a fishing area, or thoughtlessly discarding their noisome wastes. Whether on a global or local scale, the principle of respect is the same: it is essentially and attitude of mālama and aloha, as Hawaiians say, that is, of caring with love (Kanahele, 1986, pp. 97-98).

The American Institutes for Research® conducted a study, submitted to the California Department of Education, of the impact of weeklong residential outdoor education programs. The focus was on at-risk youth, 56% of whom reported never having spent time in a natural setting. Comparing the impact on students who experienced the outdoor education program versus those in a control group who had not had the outdoor learning experience, results were statistically significant. Major findings were: 27% increase in measured mastery of science concepts; enhanced cooperation and conflict resolution skills; gains in self esteem; gains in positive environmental behavior; and gains in problem-solving, motivation to learn, and classroom behavior.

(Original Research)

“Effects of Outdoor Education Programs for Children in California.” American Institutes for Research: Palo Alto, CA: 2005. Available on the Sierra Club web site.

(http://www.sierraclub.org/youth/california/outdoorschool_finalreport.pdf)