

Project Kolo Ke A'a:
Firmly Rooted As We Grow
(2020 - 2023)

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A. Need for Project

(i) The magnitude of the need for the services.

The Hawaiian language nearly became extinct after it was banned in Hawai‘i’s schools in 1896. More than eight decades later, three constitutional provisions in 1978 aimed to save the Hawaiian language. The constitution made Hawaiian an official language of the state of Hawai‘i along with English (Article XV, Sec. 4); required that the study of Hawaiian be promoted by the state and be provided for in the public schools (Article X, Sec. 4); and also required state protection of “traditional and customary rights” of descendants of indigenous Hawaiians that are “exercised for subsistence, cultural and religious purpose” (Article XII, Sec. 7)¹.

Located in Kea‘au on the island of Hawai‘i, Ke Kula ‘O Nāwahīokalani‘ōpu‘u (Nāwahī) can be seen as an effort to address the 1978 constitutional provisions. Nāwahī uses Hawaiian as its official language of all courses, all internal operations, and all internal administration. Nāwahī promotes the expanded academic study of Hawaiian by Hawaiian-speaking children, rather than simply according them recognition for home knowledge of Hawaiian as can happen in English medium schools. Finally, Nāwahī protects the central role of primary and dominant fluency in Hawaiian in the exercise of Hawaiian subsistence, culture and religious activities by Native Hawaiian children and their families.

Currently, 97% of the total student population at Nāwahī is Hawaiian or part-Hawaiian. The remaining 3% of ethnicities are comprised of Caucasian (2%) and Asian (1%). Over 60% of Nāwahī students come from “free and reduced lunch” socio-economic status. In general, Hawai‘i English medium public schools, serving high Native Hawaiian student populations and high percentage of economically disadvantaged families, struggle to maintain strong academic

¹ Please refer to *References Section* for citations throughout this narrative.

outcomes. This is not the case for Nāwahī, which has been quite successful in producing higher academic outcomes for its students than achieved by peers in English medium schools. Nāwahī has a higher high school graduation and college attendance rate than the state public school average for students of all socio-economic and ethnic backgrounds. In 2018, the on-time graduation rate for the state of Hawai‘i was 84%, while the college enrollment rate was 55%.ⁱⁱ Since its first high school graduation in 1999, Nāwahī has had a 100% high school graduation, 80% college attendance rate and all students graduating with English proficiency appropriate for English medium colleges. Graduates have been accepted at Stanford, Dartmouth, Loyola Marymount and other out-of-state universities.

The Project, *Kolo Ke A‘a: Firmly Rooted As We Grow* (“Project Kolo Ke A‘a”), honors the values and assets that have produced a vibrant learning culture through a P-20 spectrum for Nāwahī students and seeks to increase access to Hawaiian language medium (HLM) opportunities that foster 21st century skills.

As an HLM school, Nāwahī continues to face equity issues relative to differences in research perspective, preservice and in-service staff training, curriculum materials availability, and access to special programs and assessments in Hawaiian. There are equity issues in the collective support of HLM schools taught through the medium of one of the two official state languages. Specifically, there is a much higher level of support and resources for students enrolled in Hawai‘i’s English language medium schools than for those in HLM schools, like Nāwahī. Thus, Nāwahī and its primarily HLM education partners, the ‘Aha Pūnana Leo, Ka Haka ‘Ula O Ke‘elikōlani (UH Hilo), and the bilingual ‘Imiloa Astronomy Center must constantly press forward to develop curricula, teaching materials, teacher capacity, and student work-based learning opportunities through Hawaiian.

According to the 2018 Nāwahī WASC Accreditation Self-Study, the areas identified for improvement to optimize student learning include continued documentation of curriculum for vertical and horizontal alignment, more collaboration time between faculty members on cross-content and support for teacher professional development for student success. Project activities will address these areas and more.

Currently there are no existing stand alone HLM computer science courses to prepare students for high-demand STEM careers. Computer science/coding courses will build foundational computer science skills needed for high-demand and high-paying jobs in both Hawaiian and English languages. According to the U.S. Bureau of Labor Statistics from 2018 through 2028, 67% of all new jobs in STEM are in computing.^{iii, iv} A report from Burning Glass, a job market analytics firm, found that coding has become a core skill that bolsters a candidate's chances of commanding a high salary.^v Coding skills are defined as using a computer program to write instructions to a computer. Burning Glass researchers found jobs that require coding skills pay on average, up to \$22,000 more per year.^v "For students looking to increase their potential income, few other skills open the door to as many well-paying careers," they write in the report.^v Nearly half (49%) of all jobs that pay more than \$58,000 require some coding skills, according to their analysis.^v HLM students who excel in the field of computer science will ensure the vibrancy of the Hawaiian language and its worldview within Hawai'i's future workforce.

HLM students and graduates lack access to college-level courses in Hawaiian that meet general education core requirements and are applicable toward a STEM baccalaureate degree.

Under a previous NHEP project, 7 HLM college-level courses were developed, but it is not enough for students to make a significant headway toward earning a STEM baccalaureate degree and preparing them to enter the workforce.

In addition, offering early and dual credit courses through the Hawaiian language would strengthen the use of the language along the educational continuum (e.g. preschool through postsecondary). It would ensure a seamless connection to the larger effort to provide high quality education through Hawaiian to the growing Hawaiian-speaking population.

Currently, Nāwahī students do not have HLM internship opportunities that allow them to gain deeper understanding and hands-on experience in their field of interest. Work-based learning opportunities can provide a bridge into careers, equip students with skills that are in demand in the labor market, and connect them to potential employers.^{vi} HLM students bring not only their interest in these career fields but also their ability to function in the Hawaiian language and worldview. The potential benefits of internships are particularly noticeable for at risk youth, as they are most likely to face difficulties in connecting to the labor market.^{vii}

Currently, there is no capacity to develop HLM industry partnerships that support teacher externships to inform classroom instruction and curriculum. A study, which explored how teacher externships influence K-12 classroom practices, revealed that teacher experiences compelled them to want to create increased opportunities for their students to develop skills necessary for success in industry-related workplace environments.^{vii} Additionally, teachers recognized the value of drawing upon their externship experience to motivate students by fostering “real world” authenticity in their classrooms.^{vii} HLM externships will facilitate and bridge a Hawaiian language real-world setting in both the workplace and the classroom.

(ii) Specific gaps or weaknesses addressed by the proposed project.

Table 1 below summarizes the gaps in opportunities above and briefly specifies how the proposed project will address these weaknesses. A thorough description of the services to be

provided to address the needs is contained in *Section B. Project Design* and *Section C. Project Services*.

Table 1. Weaknesses to be Addressed by Project	
Weaknesses	How Addressed by Project
No existing stand-alone HLM computer science/coding courses offered to Nāwahī Iki students.	Develop and deliver HLM computer science/coding courses to serve 220 students in grades 6, 7 and 8 to build foundational computer science skills needed for high-demand and high-paying jobs in both Hawaiian and English languages. <i>(Addresses CPP 1)</i>
Lack of family resources for student participation in HLM early & dual credit courses; and low number of early & dual credit HLM courses that meet general education core requirements necessary to pursue STEM degrees.	Support student tuition for HLM early & dual credit courses; and develop and deliver 5 early & dual credit courses that satisfy general education core requirements and are applicable to pursue STEM baccalaureate degrees. All courses will satisfy target school, college, and Hawai‘i State Department of Education diploma requirements for high school graduates. <i>(Addresses CPP 1; and GPRA 3 and 4)</i>
No existing HLM industry partnerships to support student internships and teacher externships.	Create HLM industry partnerships to support student internships that expose them to real-world work experiences; and develop teacher externships that will inform instruction and curriculum that instills 21st century Hawaiian language real-world skills in students. <i>(Addresses CPP 2)</i>

B. Quality of the Project Design

(i) Project is appropriate to, and will successfully address, the needs of the target population.

The design of Project Kolo Ke A‘a will address three of four parts of the Native Hawaiian Education Program’s absolute priority as described in Table 2.

Table 2. Absolute Priority Addressed by Project
<i>Needs of At-risk Children and Youth</i>
Over sixty percent of Nāwahī students participate in the Free and Reduced Lunch program, compared to 49% of public school English medium students statewide. They lack access to college-level HLM courses that would improve their language fluency, satisfy general education core requirements necessary for a baccalaureate degree, which would strengthen their readiness for college and careers in both Hawaiian and English.
<i>Native Hawaiian Underemployment</i>
Between 2016 and 2026, STEM occupations in Hawai‘i are projected to grow 3.7 percent to 31,965 jobs. ^{ix} During the 2012 - 2016 period, Native Hawaiians were underemployed in two STEM industries in the state of Hawai‘i. In the Health Care & Social Assistance industry, Native Hawaiians represented 9.3% of workers compared to 12.2% Asian, 11.5% White and 10.7% other races including mixed races. In the Professional, Scientific & Technical Services industry, Native Hawaiians represented 3.1% of workers compared to 4.9% Asian, 8% White and 3.2% other races including mixed races. ^x The project will address this priority by 1) developing and delivering HLM computer science/coding courses 2) developing and delivering HLM early and dual credit courses that meet general education core requirements necessary for STEM baccalaureate degrees 3) develop HLM industry partnerships to support

student internships that strengthen employability skills and cultivate the Hawaiian worldview and 4) support HLM teacher externships to inform instruction and curriculum that fosters 21st century skills to function in a Hawaiian language real world setting.

Hawaiian Language Instruction

Hawaiian language is fundamental to the goal, objectives, strategies, and outcomes that this project addresses. It will be the primary language of instruction throughout. Early & dual credit courses developed in the Hawaiian language are strategically designed to perpetuate traditional Hawaiian knowledge and skills in diverse contemporary settings in Hawai‘i today. The academic study of Hawaiian and its practical use will lead to improved proficiency in both the Hawaiian and English languages (described in more detail under *Project Services*). In addition, the project will increase Hawaiian language instruction at UH Hilo, which will also increase the number of and access to HLM courses for Hawaiian language college students.

(ii) The extent to which the proposed project demonstrates a rationale.

Project Kolo Ke A‘a’s logic model (Figure 1) presents a framework that identifies key project components and describes the theoretical and operational relationships among these components and relevant outcomes. This project framework outlines how inputs (institutional strengths and weaknesses identified in the needs section), six activities, seven outputs and multiple outcomes address the project’s and institution’s goals and quantifies the level of student, faculty, administrative staff and community engagement in this endeavor.

Key components are informed by 2017-2020 NHEP evaluation findings and current research as outlined in Table 3. Effective practices are addressed in *Section C. Quality of Project Services*.

Figure 1. Logic Model

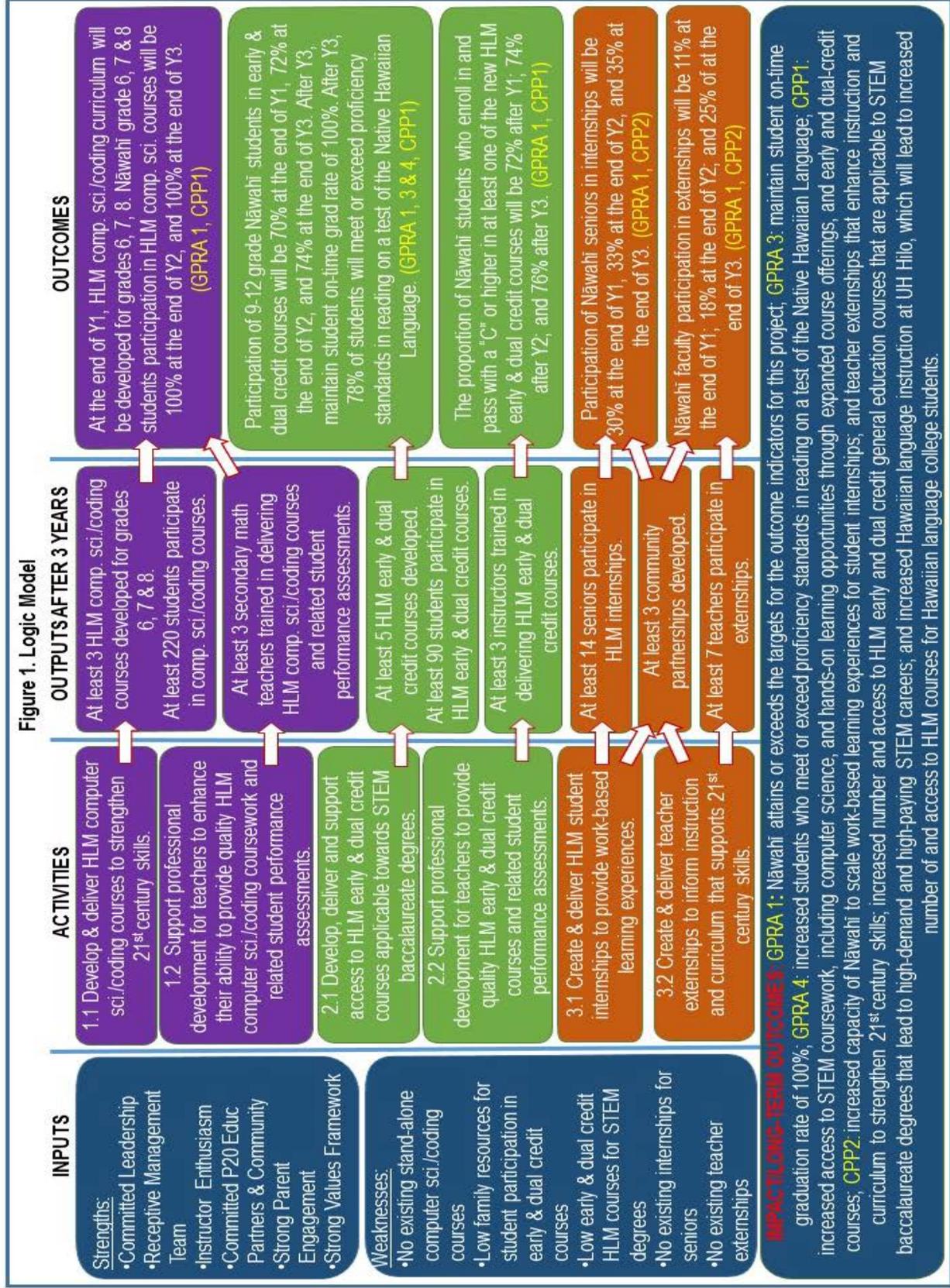


Table 3: Rationale for Key Components

Key Components: Activity 1.1 and 1.2 support the development and quality instruction of HLM computer science/coding courses for grades 6, 7 and 8. (Addresses: CPP 1)

Research Findings: As aforementioned in *Section A. Need for Project*, 67% of all new jobs in STEM will be in computing.^{xi} “Children who learn code in a programming language based on their native language learn faster than those who are stuck learning in another language.”^{xii} A report from Burning Glass, a job market analytics firm, found that coding has become a core skill that increases a candidate’s chances of commanding a high salary. The study further notes jobs that require coding skills pay on average, up to \$22,000 more per year and nearly half (49%) of all jobs that pay more than \$58,000 require some coding skills.^{xiii}

Key Components: Activity 2.1 and 2.2 support the development, delivery and access to HLM early and dual credit courses that are applicable to STEM baccalaureate degrees. (Addresses: CPP 1, GPRA 3 and 4)

Research and Evaluation Findings: According to the US Bureau of Labor Statistics, over 99% of STEM employment was in occupations that typically require some type of postsecondary education for entry, compared with 36 percent of overall employment. Seventy-three percent of STEM employment require a bachelor’s degree for entry, like software developers and engineers.^{xiv} Through its 2017-2020 NHEP Project, Nāwahī developed and delivered 7 HLM early and dual credit courses with much success: 86% of Nāwahī students enrolled in at least one of the new HLM early and dual credit courses passed with a C or higher; 100% of students graduated with a high school diploma in four years; and 70% met or exceeded proficiency standards in reading on test of the Hawaiian language. Hawaii P-20

Partnerships for Education, which is a statewide collaboration whose mission is to improve educational outcomes for Hawai‘i, issued a 2016 brief on outcomes of dual credit participants in Hawai‘i. The issue brief showed that Hawai‘i dual credit students demonstrated higher college enrollment rates; were more likely to enroll in college in the fall term immediately following high school graduation; were more likely to enroll in a 4-year institution and; had higher persistence rate into second year of college.^{xv} National research suggests that high school students with dual credits demonstrate higher four- and six-year college completion rates and shorter average time to bachelor’s degree completion for those completing in six years or less.^{xvi}

Key Components: Activity 3.1 and 3.2 fosters 21st century skills through HLM student internships and classroom instruction and curriculum that have been informed by instructors who participate in HLM teacher externships. (Addresses: CPP 2)

Research: Work-based learning opportunities can provide a bridge into careers, equip students with skills that are in demand in the labor market, and connect them to potential Hawaiian and English speaking employers. The potential benefits of internships are particularly noticeable for at risk youth, as they are most likely to face difficulties in connecting to the labor market.^{xvii} A study released by Internships.com, the world’s largest internship marketplace, and the research and consulting firm Millennial Branding, surveyed a total of 4,769 college and high school students and more than 300 employers across the U.S. in 2014. The study noted that 70% of companies say that high school students who complete their internship programs are either “very likely” or “completely likely” to eventually land a college internship with their company and 49% indicated that high school internships will “very likely” or “completely likely” turn into a full-time job at their company. The study also noted that 92%

of high school students seek internships for new skills; 81% seek internships for work experience; and 72% seek the opportunity for mentorship/networking.^{xviii}

C. Quality of Project Services

(i) Quality and sufficiency of strategies for ensuring equal access and treatment.

As required by the General Education Provisions Act, Section 427, the applicant will do the following:

1. Provision of transportation services to all scheduled activities, including attending classes at UH Hilo, off-site internships and student excursions.
2. All coding courses and early and dual credit courses will be delivered in Hawaiian.
3. All students in grades 6, 7 and 8 will be enrolled in newly developed HLM coding courses.
4. All Nāwahī students who could potentially benefit from project services will be targeted in outreach for HLM internships and early & dual credit courses.
5. Students participating in project services will not pay for services (i.e. tuition and course materials for early & dual credit courses).

(ii) The extent to which the services to be provided by the proposed project reflect up-to-date knowledge from research and effective practice.

The design of *Kolo Ke A‘a* expands HLM learning opportunities to further dual language Hawaiian/English proficiency and academic outcomes based on key research. It includes recommended high-level bilingual environments where students “translanguage” through reading much of their academic reference materials in English with discussion, student writing and projects in the minority language.^{xix} The HLM total immersion approach is recognized as developing maximum “balanced biliteracy,” which produces maximum cognitive advantages.^{xx,xxi}

The cognitive advantages of high balanced biliteracy include divergent thinking and superior pattern recognition – both important in STEM fields.^{xxii} The Native Hawaiian community goal of language revitalization and restoration to the home is well served by the program.^{xxiii, xxiv} It provides adolescents with the high proficiency needed to raise future generations in the language. In addition, it fosters within students an identity that integrates Hawaiian tradition with contemporary applications of STEM through which they can support their future Hawaiian-speaking families.^{xxv} The resulting high balanced bilingualism provides a cognitive advantage in learning other languages useful for international business application of STEM knowledge in the students’ adult lives.^{xxvi}

As aforementioned in *Section B. Quality of Project Design, subsection ii, Table 3*, 70% of Nāwahī students who enrolled in early and dual credit HLM courses met or exceeded Nāwahī’s high Hawaiian language proficiency goals. In building on the success of these HLM early and dual credit courses, *Kolo Ke A ‘a* will develop 5 more HLM early and dual credit courses that meet general education core requirements and are applicable to STEM baccalaureate degrees. They are listed and briefly described below:

1. Social Studies (KHIS 152): Mō‘aukala Ao Pae II – This course will cover a historical study of humanity upon the face of the earth from the initial spread of Europeans into the lands of indigenous peoples (approximately 1500 C.E) until the present. It will focus on aspects that have been integrated into contemporary living, Native Hawaiian culture and identity, as well as those areas with parallels in the specific history of Hawai‘i.
2. Math/Statistics (KMAT 115): Students will learn to utilize basic statistical topics including measures of central tendency and dispersion, classification of variables sampling techniques, elementary probability, normal and binomial probability distributions, tests of hypothesis,

linear regression and correlation in order to solve problems afflicting modern Hawaiian society.

3. Intro to Hawaiian Ethno-Environmental Science (KENS 100): This introductory course links the human and physical/chemical/biological world from a perspective based in traditional and contemporary Hawaiian culture. The course will also focus on critical thinking and the integration of both natural and social science approaches in understanding and addressing environmental issues in Hawai‘i and other indigenous communities.
4. Hawaiian Ethnzoology (HWST 213): This course will explore Hawaiian fish, birds, and other creatures: their identification, their place in the heritage of the Hawaiian people, methods of capture, and their practical uses.
5. English through HLM (KENG 100): This introductory course will provide a deeper understanding of English as a global language, including its use in science and business. Instruction and practice in writing clear, effective university-level English essays and a research paper. Attention to all stages of the process: generating ideas, drafting, revising and editing.

The new courses will be offered through the College of Hawaiian Language at UH Hilo (Ka Haka ‘Ula O Ke‘elikōlani) and they will be available as college-credit bearing courses. All new courses will be open to Nāwahī students and to UH Hilo students and also satisfy the Nāwahī/Hawai‘i State Department of Education Diploma Requirements for high school graduates. Furthermore, courses will be integrated into the regular course offerings at UH Hilo so that HLM students from other Hawaiian language schools who enroll at UH Hilo can continue their HLM education while satisfying degree requirements.

Student internships will also be developed and delivered at community sites where employers are proficient in the Hawaiian language. Thus, students will benefit from gaining work experience while increasing their language proficiency in a real-world context. Sample internship sites where students will be immersed in Hawaiian work-based settings include ‘Aha Pūnana Leo (a private non-profit HLM corporation), ‘Imiloa (Bilingual Astronomy and Science Center at UH Hilo), ‘Ōiwi TV (a nonprofit producer of documentaries, news and multimedia content from a uniquely Hawaiian perspective) and other regional community partners.

(iii) Likely impact of the services on the intended recipients of those services.

Table 4 below describes the likely impact of services on the intended recipients.

Table 4: Impact of Services	
Intended Recipients	Likely Impact of Services
Middle school students taking HLM computer science/coding courses	Middle school students gain high-demand, high-paying computer science/coding skills that influence their interest in STEM careers; increase knowledge and use of Hawaiian language and specialized technical vocabulary.
High school students taking HLM early and dual credit courses	High school students increase language proficiency; earn more general education core courses that apply to STEM baccalaureate degrees that lead to high-paying and high-demand STEM careers; and graduate on time.
High school students participating in HLM internships	High school students are more empowered to cultivate a Hawaiian worldview, gain work experience and agency

	as Hawaiian language speakers, and become better informed about career interests.
Nāwahī students who participate in courses by teachers who participate in HLM teacher externships	Students gain 21st century Hawaiian language real world skills through courses informed by teachers who participated in HLM teacher externships.
Nāwahī teachers who participate in HLM teacher externships	Teachers gain industry-related skills and knowledge in order to facilitate and bridge a Hawaiian language real world setting in both the workplace and the classroom.

D. Quality of Project Personnel

(2) Employment from persons who are members of groups that have been traditionally underrepresented based on race, color, national origin, gender, age, or disability.

The project will make a proactive and concerted effort to recruit and encourage employment applications from members of traditionally underrepresented groups. The usual advertising of position vacancies includes the daily newspapers and multi-state agency electronic and print publications. In addition, position announcements will be sent to HLM and community newspapers, HLM television/radio programs, community organizations serving Native Hawaiian residents in the target areas, and social media links. Efforts to encourage applicants with disabilities to apply will include officially requesting recruitment assistance from state and community agencies with expertise in serving persons with special needs. The applicant commits to hiring staff that are current or former residents of the target areas, and/or have experience working in the target school or communities. Adults with backgrounds similar to the students and families served in the project will be particularly encouraged to apply. To that end, the population to be served will be described in all personnel advertisements, with the statement that qualified applicants with a similar background will be given preference in hiring.

(3) Qualifications, relevant training and experience, of key project personnel.

██████████ will lead the project as Project Director and contribute ██████████ time. ██████████

██████████ has over 30 years of experience in teaching, Hawaiian language revitalization and linguistics, Hawaiian philosophies and their application in the HLM context, family-based HLM education, curriculum-development, and teacher training. ██████████ academic qualifications include a doctorate in Indigenous and Hawaiian Language and Culture Revitalization and a Master's in Linguistics. Additionally, ██████████ has strong relationships within the Hawaiian speaking community throughout the entire state, within the University of Hawai'i, and in the Hawai'i DOE. ██████████ has previously directed similar federally-funded projects and as a result, has the requisite experience to successfully administer a project of this caliber.

The qualifications for the **Associate Project Director** (0.50 FTE) will include a Master's Degree in Hawaiian Language/Studies, Education, or related field and 10 years of teaching and administration experience in HLM education. Other qualifications include the ability to communicate (speak/read/write) effectively in Hawaiian and English, knowledge of laws and regulations of public school operations, experience in project management, supervising staff, and developing detailed annual budgets, reporting, and record-keeping procedures.

The qualifications for the **Project Account and Personnel Clerk** will include a Bachelor's Degree in Hawaiian Language/Studies, Business or related field and 3 years of work experience in an HLM education or business setting. Other qualifications include the ability to communicate (speak/read/write) effectively in Hawaiian and English and knowledge of laws and regulations of public school operations pertaining to budget reporting and record-keeping procedures, as well as, hiring, training, supervision, and evaluation of full-time staff.

The qualifications for ***Computer Science Coordinator*** (1.0 FTE) will include a Bachelor's Degree in Computer Science or related field and 5 years of work experience in an HLM education or business setting. Other qualifications include the ability to communicate (speak, read, and write) effectively in Hawaiian and English, experience in computer science curriculum development through the Hawaiian worldview, leadership skills, and developing detailed reports and records.

The qualifications for ***College Success Coordinator*** (.50 FTE) will include a Bachelor's Degree in Education or related field and 5 years of work experience in an HLM education or business setting. Other qualifications include the ability to communicate (speak, read, and write) effectively in Hawaiian and English, experience in college and/or high school counseling through the Hawaiian worldview, leadership skills, and developing detailed reports and records.

The qualifications for ***Student Internship Coordinator*** (1.0 FTE) will include a Bachelor's Degree in Business or related field and 5 years of work experience in an HLM education or business setting. Other qualifications include the ability to communicate (speak, read, and write) effectively in Hawaiian and English, experience in project development and planning through the Hawaiian worldview, leadership skills, and developing detailed reports and records.

The qualifications for ***Teacher Externship Coordinator*** (.50 FTE) will include a Bachelor's Degree in Business or related field and 5 years of work experience in an HLM education or business setting. Other qualifications include the ability to communicate (speak, read, and write) effectively in Hawaiian and English, experience in project development and planning through the Hawaiian worldview, leadership skills, and developing detailed reports and records.

E. Quality of the Management Plan

(i) The adequacy of the management plan to achieve the objectives of the proposed project.

Table 5 details *Kolo Ke A'a*'s management plan to successfully implement proposed activities that will lead to achieving project objectives.

Note: **PD** = Project Director, **APD** = Associate Project Director, **PAPC** = Project Account & Personnel Clerk, **CSC** = Computer Science Coordinator, **CoISC** = College Success Coordinator, **SIC** = Student Internship Coordinator, **TEC** = Teacher Externship Coordinator.

Table 5. Management Plan			
CPP 1: Increased access to STEM coursework, including computer science, and hands-on learning opportunities through expanded course offerings, and early and dual-credit courses.			
Objective 1.1: Increase foundational computer science skills through participation in HLM coding courses.			
Activity 1.1: Develop and deliver computer science/coding courses for grades 6, 7 and 8.			
Activity 1.2: Improve teacher capacity to deliver quality HLM instruction for new computer science/coding curriculum and related student performance assessments.			
Key Steps	Timeframe	Deliverables	Key Personnel
Recruit and hire CSC and course developers	Sept - Nov (Y1)	1-CSC (1.0 FTE) Signed contracts for course developers	PD, APD, PAPC
Develop curriculum for grades 6, 7 & 8.	Nov - Mar (Y1)	Curriculum Content and Assessments	CSC, Course Developers
Schedule PD workshops for grade level teachers	Apr - May (Y1)	PD schedule	PD, APD, CSC

Enroll students in courses	Aug (Y1, Y2, Y3)	Student roster and class schedule	CSC
Organize and implement student excursions	Aug - May (Y1, Y2, Y3)	Excursion Schedule	CSC
Monitor student academic progress toward coding coursework.	Aug (Y1, Y2, Y3) - May (Y2, Y3)	Student grades in coursework	CSC, faculty
Collect and analyze participation and outcomes information to inform coursework improvement	Oct, Dec, Mar, May (Y1, Y2, Y3)	Quarterly meetings (mid and end of Fall and Spring semesters) with teachers and key personnel.	PD, APD, CSC and faculty

Objective 2.1: Increase language proficiency and maintain 100% on-time grad rate through participation in HLM early and dual credit coursework applicable toward STEM baccalaureate degrees.

Activity 2.1: Develop and deliver HLM early & dual credit coursework required for STEM baccalaureate degrees.

Activity 2.2: Improve teacher capacity to deliver quality HLM instruction for new early and dual credit coursework and related student performance assessments.

Key Steps	Timeframe	Deliverables	Key Personnel
Recruit and hire ColSC and interview proctors	Sept - Oct (Y1)	1 - ColSC (.50FTE)	PD, APD, P APC

ColSC and Nāwahī personnel to work with UHH course developers to develop curriculum for KHIST 152 & KMAT 115	Oct - Dec (Y1)	Course curriculum	ColSC, UHH Course Developers, Nāwahī faculty
Schedule and deliver curriculum content alignment workshops for KHIST 152 & KMAT 115	Jan - May (Y1, Y2, Y3)	Workshop schedule	PD, APD, ColSC, UHH Course Developers, Nāwahī faculty
Register students for UHH for KHIST 152 & KMAT 115	Sept - Nov (Y1, Y2, Y3)	Student registration	ColSC, Nāwahī faculty
Enroll students in KHIST 152 & KMAT 115	Jan (Y1, Y2, Y3)	Student roster and course schedule	ColSC
Organize and implement student excursions	Aug - May (Y1, Y2, Y3)	Excursion schedule	ColSC
Schedule and administer Hawaiian language oral proficiency interviews with students.	Dec, May (Y1, Y2, Y3)	Student proficiency data	Interview Proctors, ColSC

Monitor student academic progress toward KHIST 152 & KMAT 115 coursework	Jan - May (Y1, Y2, Y3)	Student grades in coursework	CoISC, UHH/Nāwahī faculty
Collect and analyze participation and outcomes information for KHIST 152 & KMAT 115 to inform coursework improvement	Mar, May (Y1, Y2, Y3)	Quarterly meetings (mid and end of Spring semester) with UHH course developers and Nāwahī faculty and key personnel	PD, APD, CoISC, UHH Course Developers, Nāwahī faculty
CoISC and Nāwahī personnel to work with UHH course developers to develop curriculum for HWST 213, KENG 100, KENS 100	Jan - May (Y1)	Course curriculum	CoISC, UHH Course Developers, Nāwahī faculty
Schedule and deliver curriculum content alignment workshops for HWST 213, KENG 100, KENS 100	July - Aug (Y1)	Workshop Schedule	PD, APD, CoISC, UHH Course Developers, Nāwahī faculty

Register students for UHH for HWST 213, KENG 100, KENS 100	HWST 213, KENG 100: Feb - April (Y1, Y2, Y3) KENS 100: Feb - April (Y2, Y3)	Student registration	ColSC, Nāwahī faculty
Enroll students in HWST 213, KENG 100, KENS 100	HWST 213, KENG 100: Aug (Y2, Y3) KENS 100: Aug (Y3)	Student course roster	ColSC
Monitor student academic progress toward HWST 213, KENG 100, KENS 100 coursework.	HWST 213, KENG 100: Aug - Dec (Y2, Y3) KENS 100: Aug - Dec (Y3)	Student language proficiency marks and end of course grades	ColSC, UHH/Nāwahī faculty
Collect and analyze participation and outcomes information of HWST 213, KENG 100, KENS 100 to inform coursework improvement	HWST 213, KENG 100: Oct & Dec (Y2, Y3) KENS 100: Oct & Dec (Y3)	Quarterly meetings (mid and end of Fall semester) with UHH course developers and Nāwahī faculty and key personnel	PD, APD, ColSC, UHH Course Developers, Nāwahī faculty

CPP 2: Increased capacity of Nāwahī to scale work-based learning experiences for student internships; and teacher externships that enhance instruction and curriculum to strengthen 21st century skills

Objective 3.1: Increase work-based learning opportunities and 21st century skills for students through participation in internships and teacher participation in externships.

Activity 3.1: Create and deliver HLM student internships to provide work-based learning experiences.

Activity 3.2: Create and deliver teacher externships to inform instruction and curriculum that supports 21st century skills.

Key Steps	Timeframe	Deliverables	Key Personnel
Recruit and hire coordinators.	Sept - Oct (Y1)	1-SIC (1.0 FTE) 1-TEC (.50 FTE)	PD, APD, P APC
Design student preparation curriculum, industry partnership protocols and internship monitoring tools.	Oct - Dec (Y1)	Student prep curricula, industry partner protocols, internship monitoring tools.	PD, APD, SIC
Design teacher externship protocols and monitoring tools.	Oct - Dec (Y1)	Teacher externship protocols and monitoring tools	PD, APD, TEC
Assess employer needs	Ongoing (Y1, Y2, Y3)	Employer needs assessment results	PD, APD, SIC

Identify student interests	Sept (Y1) Aug (Y2, Y3)	Student interest results	SIC, Nāwahī Faculty
Identify teacher placement	Sept (Y1) Aug (Y2, Y3)	Teacher placements	PD, APD, TEC
Coordinate with industry partners in developing student internships and teacher externships	Oct (Y1) Sept (Y2, Y3)	Industry partnerships; student internships; teacher externships	PD, APD, SIC, TEC
Organize and implement student excursions	Aug - May (Y1, Y2, Y3)	Excursion schedule	SIC
Schedule student and teacher presentations	May (Y1, Y2, Y3)	Student and teacher presentations	SIC, TEC, Nāwahī Faculty
Monitor student progress	Ongoing (Y1, Y2, Y3)	Grades, employer feedback	SIC, Nāwahī Faculty
Monitor teacher progress	Ongoing (Y1, Y2, Y3)	Employer feedback	TEC, Nāwahī Faculty
Collect and analyze student and teacher participation and outcomes information to inform program	Jan, Mar, May (Y1, Y2, Y3)	End of Fall semester; mid Spring semester; end Spring semester meetings with key	PD, APD, SIC, TEC, Nāwahī Faculty

improvement		personnel and partners	
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(ii) Mechanisms for ensuring high-quality products and services from the proposed project.

Three main mechanisms will ensure high-quality products and services: 1) a solid management plan that identifies key tasks, person responsible, and the timeline for efficient implementation of the project; 2) a well-thought out evaluation plan that is tied to the objectives and expected outcomes and; 3) quarterly (twice per semester) meetings with project staff to review the progress of the project implementation and outcomes that inform the project design, school policies, classroom instruction and curriculum, and/or school infrastructure. All three mechanisms will be utilized to ensure robust annual progress and final reports.

F. Quality of the Project Evaluation

(i) Methods of evaluation will provide valid & reliable performance data on relevant outcomes.

The Associate Project Director (APD) will work alongside the project team throughout the duration of the project to implement the evaluation plan, which will feature a mixed-methods design that integrates quantitative and qualitative data collection and analysis that supports formative and summative assessments (Refer to Table 6. Evaluation Plan). The APD will work with program staff to co-design evaluation tools and project database to ensure data collection, meets the needs of the program and supports manageable and effective data collection tasks.

Data will be used to provide quarterly implementation reports on project progress, aiming to strengthen project management; and analyze the extent to which project activities and elements impact student outcomes. These reports will be shared at quarterly meetings with project staff.

Project evaluation will seek to obtain valid and reliable evidence of the effect of project activities (the intervention) on Native Hawaiian student outcomes: language proficiency and on-time graduation rates.

Table 6. Evaluation Plan	
CPP 1: Increased access to STEM coursework, including computer science, and hands-on learning opportunities through expanded course offerings, and early and dual-credit courses.	
<p>Objective 1.1: Increase foundational computer science skills through participation in HLM computer science/coding courses.</p> <p>Activity 1.1: Develop and deliver computer science/coding courses for grades 6, 7 and 8.</p> <p>Activity 1.2: Improve teacher capacity to deliver quality HLM instruction for new computer science/coding curriculum and related student performance assessments.</p>	
Performance Indicators	Source of Data & Frequency of Data Collection
<p>PI.1 <i>Formative</i>: By end of Y1, at least 3 HLM computer sci./coding classes will be developed for grades 6, 7 & 8. (Project)</p> <p>PI.2 <i>Formative</i>: At the end of Y2 and Y3, 100% of middle school students will complete HLM computer sci./coding curricula. (Project)</p>	<p>1.1 Number of new comp. science/coding courses collected at the end of Y3 by APD from Nāwahī course schedule. Data Analysis: Descriptive statistics of number of new computer science/coding courses.</p> <p>1.2 Percentage of students enrolled in new computer science/coding curricula collected annually by APD from Nāwahī student roster. Data</p>

<p>PI. 3 <i>Formative</i>: Each year, at least 3 teachers will participate in relevant professional development to enhance their capacity to deliver new computer sci./coding curricula.</p> <p>(Project)</p> <p>PI. 4 <i>Summative</i>: By end of project, Nāwahī attains or exceeds the targets for outcome indicators for this project. (GPRA 1)</p>	<p>analysis: Descriptive statistics of student enrollment in new computer science/coding curricula.</p> <p>1.3 Number of teachers attending professional development activities collected annually by APD from registration/activity roster in professional development activities. Data analysis: Descriptive statistics for participation.</p> <p>1.4 Outcomes collected for this project at the end of Y3 by APD from USDOE NHEP annual reports.</p> <p>Data analysis: Descriptive statistics and analysis of project outcomes after Y1, Y2 and Y3 compared to target outcomes.</p>
<p>Objective 2.1: Increase language proficiency and maintain 100% on-time grad rate through participation in HLM early and dual credit coursework applicable toward STEM baccalaureate degrees.</p> <p>Activity 2.1: Develop, deliver and support access to HLM early & dual credit coursework required for STEM baccalaureate degrees.</p> <p>Activity 2.2: Improve teacher capacity to deliver quality HLM instruction for new early and dual credit coursework and related student performance assessments.</p>	
<p>Performance Indicators</p>	<p>Source of Data & Frequency of Data Collection</p>

<p>PI.1 <u>Formative</u>: By end of Y1, 5 HLM early & dual credit courses will be developed. (Project)</p> <p>PI. 2 <u>Summative</u>: By end of the project, percentage of Nāwahī students enrolled in early & dual credit courses will increase from 70% to 74%. (Project)</p> <p>PI. 3 <u>Formative</u>: Each year, at least 3 instructors will have participated in relevant professional development to enhance their capacity to deliver new early & dual credit courses. (Project)</p> <p>PI. 4 <u>Summative</u>: By end of project, Nāwahī will have maintained 100% on-time graduation rate. (GPRA 3)</p> <p>PI. 5 <u>Summative</u>: By end of project, increase percent of students who meet or exceed proficiency standards in reading on a test of the Native Hawaiian Language from 70% to 76%. (GPRA 4)</p>	<p>2.1 Number of HLM early & dual credit courses developed collected annually by APD from course schedule. Data Analysis: Descriptive statistics of number of new courses.</p> <p>2.2 Percentage of students enrolled in HLM early & dual credit courses collected annually by APD from Nāwahī student roster. Baseline data obtained from Nāwahī early & dual credit enrollment located in Nāwahī database. Data analysis: Descriptive statistics of student enrollment and calculations of participation rates.</p> <p>2.3 Number of teachers participating in professional development activities collected annually by APD from the activity registration/activity roster. Data analysis: Descriptive statistics of teacher participation in professional development activities.</p> <p>2.4 Percent of on-time graduation rate will be collected at the end of project by APD from the Nāwahī student database. Baseline data from graduation count in Nāwahī student database. Data analysis: Descriptive analysis of longitudinal change over time (pre-post).</p>
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<p>PI. 6 <i>Summative</i>: By end of project, Nāwahī attains or exceeds the targets for outcome indicators for this project. (GPRA 1)</p>	<p>2.5 Percent of students who meet or exceed proficiency standards in reading on a test of the Native Hawaiian Language collected at the end of each project year by APD from Nāwahī student database. Baseline data from language interview scores located in Nāwahī student database: Data analysis: Descriptive analysis of longitudinal change over time (pre-post).</p> <p>2.6 Outcomes collected for this project at the end of Y3 by APD from USDOE NHEP annual reports. Data analysis: Descriptive statistics and analysis of project outcomes after Y1, Y2 and Y3 compared to target outcomes outlined in this application.</p>
<p>CPP 2: Increased capacity of Nāwahī to scale work-based learning experiences for student internships; and teacher externships that enhance instruction and curriculum to strengthen 21st century skills.</p>	
<p>Objective 3.1: Increase work-based learning opportunities and 21st century skills for students through participation in internships and teacher participation in externships.</p> <p>Activity 3.1: Create and deliver HLM student internships to provide work-based learning experiences.</p> <p>Activity 3.2: Create and deliver teacher externships to inform instruction and curriculum that supports 21st century skills.</p>	

Performance Indicators	Data Source & Frequency of Data Collection
<p>PI 1. <i>Formative</i>: By end of project, 35% of seniors will have participated in internships. (Project)</p>	<p>3.1 Percent of seniors participating in an internship collected after Y1 and Y2 by APD from Nāwahī course schedule. Data Analysis: Descriptive statistics of number of student participants and calculation of participation rate.</p>
<p>PI 2. <i>Formative</i>: By end of project, at least 3 community partnerships developed. (Project)</p>	<p>3.2 Number of community partnerships collected each year from internship program documentation materials by APD. Data analysis: Descriptive statistics of number of community partners participating in internship program.</p>
<p>PI 3. <i>Formative</i>: By end of project, 25% of teachers will have participated in externships. (Project)</p>	<p>3.3 Number of teachers participating in externships collected each year from teacher externship program documentation materials by APD. Data analysis: Descriptive statistics of number of teacher participants and calculation of participation rate.</p>
<p>PI. 4 <i>Summative</i>: By end of project, Nāwahī attains or exceeds the targets for outcome indicators for this project. (GPRA 1)</p>	<p>3.4 Outcomes collected for this project at the end of Y3 by APD from USDOE NHEP annual reports. Data analysis: Descriptive statistics and analysis of project outcomes after Y1, Y2 and Y3 compared to target outcomes.</p>

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