



STUDENT OUTCOMES DEVELOPMENT PROJECT REPORT

GPRA PROJECT REPORT

Submitted to:

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June 1, 2018

This report was developed under a grant from the U.S. Department of Education, Office of Elementary and Secondary Education, Native Hawaiian Education Program. The contents of the report do not necessarily represent the positions or policies of the U.S. Department of Education. Neither the U.S. Department of Education nor any of its components are responsible for or officially endorse the contents of this report. This report should be cited as:

Native Hawaiian Education Council. (2018). Student Outcomes Development Project Report. Honolulu, HI: Native Hawaiian Education Council.

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Introduction

In 2017, the Native Hawaiian Education Council (NHEC) engaged Pacific Policy Research Center (PPRC) to develop and implement a broad stakeholder, community-based process to develop student outcome measures for consideration by the U.S. Department of Education (USDOEd). The developed student outcome measures would be proposed by the NHEC to the USDOEd, and add to the federal Government Performance and Results Act (GPRA) program measures under the responsibility of the Office of Management and Budget (OMB). From here-on, this initiative is referred to as the GPRA Project.

In late 2016, the USDOEd asked the NHEC to give further thought about the process to vet with other Native Hawaiian education stakeholders regarding the GPRA measures and related processes that govern NHEP grantee reporting, including considerations such as: can the data be readily collected and reported by all grantees; understanding and estimating the impact or “burden” to grantees to collect and report such data; and the aggregated utilization for budget justification and impact.

The USDOEd requested that the NHEC propose measures to GPRA for their consideration in line with NHEC’s statutory responsibilities under the Native Hawaiian Education Act (NHEA) of 1994. Under the NHEA, the NHEC is tasked to coordinate, assess, report, and make recommendations on the effectiveness of existing education programs for Native Hawaiians, the state of present Native Hawaiian education efforts, and improvements that may be made to existing programs, policies, and procedures to improve the educational attainment of Native Hawaiians.

The Native Hawaiian Education Program (NHEP) is a federally funded, discretionary, competitive grant program, administered by the USDOEd, Office of Elementary and Secondary Education, Office of Academic Improvement. The purpose of the NHEP is to develop innovative education programs to assist Native Hawaiians and to supplement and expand programs and authorities in the area of education. Authorized activities include, among others: early education and care programs; family-based education centers; beginning reading and literacy programs; activities to address the needs of gifted and talented Native Hawaiian students; special education programs; professional development for educators; and activities to enable Native Hawaiian students to enter and complete postsecondary education programs.

Currently, NHEP grantees are required to report on the following GPRA standards as applicable to their programs. The percentage of:

- (1) Native Hawaiian students in schools served by the program who meet or exceed proficiency standards for reading, mathematics, and science on the State assessments;

- (2) Native Hawaiian children participating in early education programs who consistently demonstrate school readiness in literacy as measured by the Hawai'i School Readiness Assessment;
- (3) Students in schools served by the program who graduate from high school with a high school diploma in four years; and
- (4) Students participating in a Hawaiian language program conducted under the Native Hawaiian Education Program who meet or exceed proficiency standards in reading on a test of the Hawaiian language.

For years, many Native Hawaiian education programs receiving NHEP funds have claimed that the aforementioned GPRA standards as the sole set of outcome measures are inadequate for measuring the learning, growth, success, and achievement of Native Hawaiian students. They have voiced that these standards are culturally incongruent and foreclose the possibility of evaluating what is central to their program goals and outcomes. In sum, current GPRA standards are not aligned to what Native Hawaiian communities believe is educationally important to measure.

The goals of the GPRA Project are grounded in this long-stated need from within the Native Hawaiian education community and compelled by the invitation from the USDOEd to submit recommendations for additional outcomes measures to supplement current NHEP GPRA standards.

GPRA Project Strategy and Methods

The goal of the GPRA Project is two-pronged: (1) to recommend additional student outcome measures to the USDOEd and OMB that respond to the need within the Native Hawaiian education community, and among NHEP-funded programs, for meaningful, culturally-aligned measurement; and (2) to recommend student outcome measures in line with federally recognized parameters, research, and best practices to optimize their potential for referral and adoption. As such, the GPRA Project has pursued the following strategies:

- Identify commonalities and equivalencies between federal and state-level student learning outcomes and culture-based outcomes.
- Engage stakeholders to examine community priorities for the education of Native Hawaiian students.
- Explore and affirm a limited set of student-centered outcomes that link culturally relevant learning to academic growth and achievement.
- Make outcomes recommendations based on the greatest potential for USDOEd support and communication to OMB.

These strategies are animated in three research questions that guide the GPRA project and reporting process:

Q1. What types of student outcome measures at federal and state program levels align with learning outcomes being pursued within the Native Hawaiian education community and other Indigenous communities outside of Hawai‘i?

Q2. What insights, preferences, and priorities do Native Hawaiian education programs and the broader community offer for developing new or altered GPRA standards?

Q3. What new or altered, culturally aligned, and GPRA appropriate student outcome measures can be recommended based on extant data review and feedback from the community?

Each of the aforementioned research questions correspond to a project phase, in which (1) the USDOEd Institute for Education Sciences (IES), What Works Clearinghouse (WWC) programs database, state departments of education programs, and peer-reviewed research were scanned and mined for non-academic, student outcome measures that potentially cross-walk to culture-based outcome measures in Hawai‘i; (2) communities across Hawai‘i were invited via listening sessions, survey, and phone interviews to offer feedback on the types of student outcome measures they thought were important for measuring Native Hawaiian learning, growth, success, and achievement; and (3) communities across Hawai‘i were invited to comment on and validate the outcome measures PPRC and NHEC selected for potential recommendation to the USDOEd after reviewing the data collected in research phases 1 and 2.

The initial GPRA inquiry was framed to the community as a search for a new GPRA standard that is ‘student-focused’ - to narrow the scope of the outcome to focus on the individual (vs. families or communities); ‘achievement-focused’ - to ensure that recommended GPRA standards are qualitatively or quantitatively measurable; and ‘identity-focused’ - which was thought to best link Native Hawaiian cultural outcomes to “Western” ones grounded in education research. It is well understood that gains in academic achievement and/or academic outcomes are the priority of the USDOEd. The logic is that the measures that contribute to identity formation, such as ‘self-confidence’ and ‘self-efficacy’, have already been found to improve academic achievement. Subsequently, the development of identity is also important for culture-based instruction and learning, and therefore potentially served as common ground for identifying culturally-relevant measures described in Western education science.

After the initial review of community and extant data, PPRC coded and weighted emergent outcome themes. From this initial analysis, PPRC determined that social emotional learning (SEL) attributes occurred most often, which included identity formation constructs as well as other social, attitudinal, and cognitive values, behavior, and skills. Furthermore, the organizational structure of SEL as a system

of outcome measures presented as an appropriate way to organize the community data in order to draw semantic parallels between cultural and non-cultural outcomes and indicators. As such, PPRC proposed social emotional learning as an outcomes system, or domain, to the community for GPRA consideration in the final phase of this research project.

Data Collection Activities

Extant data review. PPRC scanned federal and state extant data repositories compiled on individual student outcomes for the purposes of identifying non-academic-based measures that potentially align to those that are culture based and valued within the Native Hawaiian education community. PPRC reviewed: (1) USDOEd Institute for Education Sciences (IES) What Works Clearinghouse (WWC) programs database; (2) the program inventories of all 50 state departments of education; and (3) academic literature on the influence of identity formation on academic achievement. Education Resources Information Center (ERIC), Elton B. Stephens Co. (EBSCO) Host, PsycINFO, and Journal Storage (JSTOR) served as primary search engines for this literature scan, supplemented by Google Scholar.

Community listening sessions. PPRC and NHEC conducted a total of eight (8) community meetings with stakeholders on O‘ahu, Hawai‘i Island, Kaua‘i, Maui, Lāna‘i, and Moloka‘i between June and September of 2017. The purpose of these meetings was to gather input on the types of individual, student-based outcomes, with a focus on identity formation, that would be meaningful for measuring Native Hawaiian learning, growth, success, and achievement. NHEP grantees, schools, teachers, administrators, universities, kūpuna, community programs, and general community members were invited to participate. The 2017 meeting schedule was as follows:

Jun. 19: Kihei Charter School (Kihei, Maui)
Jun. 21: Connections Public Charter School (Hilo, Hawai‘i)
Jul. 7: Ke Kula Kamakau (Kāne‘ohe, O‘ahu)
Jul. 11: Kawaikini NCPCS (Līhu‘e, Kaua‘i)
Jul. 14: Kanu o Ka ‘Āina (Waimea, Hawai‘i)
Jul. 15: Ka Honua Momona (Moloka‘i)
Sept. 18: Lāna‘i Culture and Heritage Center (Lāna‘i)
Sept. 19: Kamaile Academy (Wai‘anae, O‘ahu)

GPRA Feedback Survey. PPRC developed and administered an electronic survey to community stakeholders statewide as an additional measure to gather input on the types of student-based outcomes, with a focus on identity formation, that would be meaningful for measuring Native Hawaiian learning, growth, success, and achievement. The survey featured a combination of demographic, Likert-scale, and open response items.

Follow-up Phone Survey. PPRC conducted phone interviews with select individuals identified from the community stakeholder list who were determined to be highly knowledgeable and/or engaged in the educational programs and initiatives for Native Hawaiian students. Items from both the community listening sessions and GPRA Feedback Survey were adapted to develop the phone survey protocol.

Follow-up Community Survey. Upon developing recommendations for the new GPRA standard, PPRC distributed a survey to community stakeholders for validation of its utility, feasibility, and cultural appropriateness. The survey featured a combination of demographic, Likert-scale, and open response items with space to offer examples of culturally equivalent outcome measures to those proposed.

Outcomes Inventory. PPRC developed an inventory of outcome measures collected via community data collection activities (surveys, interviews, listening sessions), as well as the extant data and literature scan. The inventory is divided into three sections – Community Data, Federal/IES Data, State DOE Data. Each section presents findings by “outcome domain”, “outcome”, and “indicators”.

Analysis and Reporting

All data collected from surveys, listening sessions, and phone interviews were cleaned and organized. Descriptive statistics, including mean values and frequency counts, were calculated for all Likert-scale items. Qualitative data from open response items and interview narratives were cleaned, coded and thematically summarized. Using qualitative analysis methods, initial codes were created and used to sort and organize data. Informed by these coding results, primary themes from the data were identified and extracted. PPRC combined responses from items that featured across data collection instruments and analyzed them in aggregate to distill the most comprehensive interpretation of community viewpoints. Qualitative summaries were then cross-analyzed with quantitative summaries to provide the most comprehensive interpretation of results.

Question 1. What types of student outcome measures at federal and state program levels align with learning outcomes being pursued within the Native Hawaiian education community and other Indigenous communities outside of Hawai'i?

PPRC reviewed three repositories of data to discern the prevalence and extent to which federal and state-level education programs feature student outcome measures that potentially align with culturally-congruent learning outcomes pursued within the Native Hawaiian education community and other Indigenous communities. PPRC scanned the (1) USDOEd Institute for Education Sciences (IES) What Works Clearinghouse (WWC) programs database; (2) the program inventories of all 50 state departments of education; and (3) academic literature on the influence of identity formation on academic achievement.

IES, What Works Clearinghouse

IES WWC reviews existing research on programs/interventions in education in both school and out-of-school settings across the country. The WWC reviews the evidence provided within these studies and applies design standards to make a determination about program/intervention effectiveness. PPRC reviewed research studies on programs/interventions classified under the category of 'Behavior'. This category cross-references academic and non-academic interventions across the developmental continuum (K-12, postsecondary) that have yielded significant results in the following domains: emotional/internal behavior, external behavior, knowledge, attitudes and values, other academic performance, problem behavior, school engagement, and social outcomes. For each study, WWC makes a determination about whether the program/intervention has had positive, potentially positive, negative, or potentially negative effects in the aforementioned outcome domains.

PPRC scanned the reviews of all behavior-based programs/interventions that were assigned a positive or potentially positive effectiveness rating per WWC standards. A total of 20 study reviews met these IES criteria. From there, PPRC inventoried student outcomes categories and related indicators to create a picture of non-achievement-based measures validated by federal-level review. The results of the scan showed that the programs under WWC review exhibited positive or potentially positive results in three (3) broad outcome categories: Cognitive (knowledge, reasoning), Behavioral (competencies and skills, pro-social behavior, risk-behavior), and Affective (emotions, attitudes, motives).

Table 1. Outcomes from programs/interventions that were assigned a positive or potentially positive effectiveness rating by IES. Source: Institute for Education Sciences, What Works Clearinghouse

Cognitive	Behavioral	Affective
<p><i>Knowledge</i></p> <ul style="list-style-type: none"> • understanding values/norms • risk prevention • interpersonal knowledge • intrapersonal knowledge • academic content <p><i>Reasoning</i></p> <ul style="list-style-type: none"> • moral/ethical reasoning • critical thinking/decision making 	<p><i>Competencies/skills</i></p> <ul style="list-style-type: none"> • resistance • responsibility • integrity • respect • leadership • intrapersonal competency (self-control, self-discipline, self-regulation) • interpersonal competency • communication • coping <p><i>Pro-social Behaviors</i></p> <ul style="list-style-type: none"> • service • healthy lifestyle • kindness • trustworthiness • justice, fairness • positive participation <p><i>Risk Behaviors</i></p> <ul style="list-style-type: none"> • substance use • sexual risk-taking • violence • absence/tardiness • discipline issues • crime 	<p><i>Attitudes/Motives</i></p> <ul style="list-style-type: none"> • prosocial dispositions • attitudes toward school • attitudes toward risk/health • civic dispositions • attitudes toward diversity • intrapersonal strengths (self-esteem, self-efficacy) • internalizing problems <p><i>Attitudes/Emotions</i></p> <ul style="list-style-type: none"> • caring (e.g., empathy) • reflectivity • school bonding/school engagement • justice, fairness

These outcomes and indicators were distilled from the results of program studies that pursue a wide variety of goals, serve youth across the K-12 spectrum, and are structured as single and multi-site interventions. For example, Caring School Community (CSC) is a nationally-recognized, evidence-based program that builds classroom and schoolwide community while developing students' social and emotional (SEL) skills and competencies. This program focuses on students in grades K-6. CSC strengthens students' connectedness to school, which is "an important element for increasing academic motivation and achievement and for reducing violence and delinquency" (Center for the Collaborative Classroom). The study results rated by WWC showed that the program has positively impacted student behavior, sense of community, and social development. Building Decision Skills (BDS) is another exemplar program. BDS aims to raise middle and high school students' awareness of ethics, help them

gain practical experience in developing core values, and give them practical strategies for dealing with ethical dilemmas. When combined with service learning, the program was found to have potentially positive effects on students' knowledge, attitudes and values, specifically in the domains of ethical awareness, ethical responsibility, ethical perspective, self-esteem, social responsibility (general), social responsibility (school), and anticipated future community participation. A third and final example can be found in the Responsive Classroom Approach, which is not a curriculum per se, but an evidence-based approach to teaching that focuses on the connection between academic success and social and emotional learning in elementary and middle school grades. The IES-reviewed study of this intervention showed that the Responsive Classroom Approach improved student achievement (gains in math and reading) and improved student-teacher interactions.

State Departments of Education

In scanning the outcome domains for non-academic programs at the state DOE-level, five overarching themes emerged. In order of prevalence, the themes uncovered are as follows: (1) Personal Wellness and Social Emotional Health (28 states); (2) Intellectual Skills and General Knowledge (18 states); (3) Career Education (12 states); (4) Culture, Family & Environment (12 states); and, (5) Physical Education/Activity (4 states). The themes did overlap in some areas, sharing outcome domains in certain instances. Many of the programs reviewed included health and/or career readiness curricula that centered around students' development of social emotional skills such as self-awareness, communication, relationship-building, and decision-making.

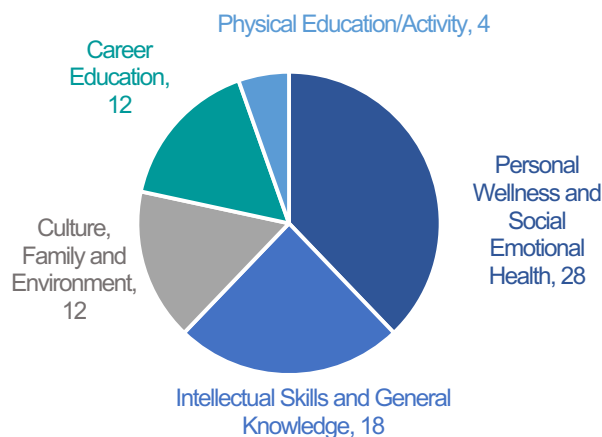


Figure 1. Distribution of Outcomes Categories Across Non-Academic State DOE Programs. 50 States Reviewed.

While some of the outcome domains under the Personal Wellness and Social Emotional Health theme are broadly listed as “*wellness*,” “*core concepts*,” or “*health literacy*,” social emotional learning outcome domains are also common under this theme. Practical social skills such as “*interpersonal communication*,” “*decision-making*,” and “*goal setting*,” as well as domains like “*social and emotional health*,” “*personal and social development*,” and “*mental and emotional health*” are examples.

Broad health domains like that of the state of South Carolina’s “*health knowledge*” domain includes the following concept-related outcome: “*Students will comprehend concepts related to health promotion and disease prevention to enhance health.*” While the outcome domains under this theme are health-

related, the majority of outcomes are social emotional in nature. The state of Washington, for example, includes the domain of “*social emotional health*” within their Health Standards. The domain includes emotional outcomes for *self-esteem; body image; stress management; expressing emotion; harassment, intimidation, and bullying*; as well as, *emotional, mental, and behavioral health*. Another example can be found in the state of Louisiana’s Academic Standards, which include the domains of “*communication, decision-making, goal-setting, and advocating*.” These domains are rooted within outcomes focused on utilizing social emotional skills to improve and promote health. For example, the outcome for the domain of “*decision-making*” is: “*Students will demonstrate the ability to use decision-making skills to enhance health*.” Other social and emotional outcome domains originated from state counseling programs and transcend a specific school subject. For example, the state of Tennessee’s “*personal and social development*” domain incorporates the following student outcome: “*Self-knowledge and interpersonal skills*” gained through “*acquiring the attitudes, knowledge, and interpersonal skills to help them understand and respect self and others*.”

The theme of Intellectual Skills and General Knowledge also encompassed a sizable portion of states’ outcome domains. States focus on outcomes such as “*critical thinking*,” “*research and reasoning*,” “*problem solving*,” “*innovation and creativity*,” and “*accessing information*.” Both intellectual and practical outcomes fell under these domains. For example, the outcome domain of “*research and reasoning*” for the state of Colorado, asks students to articulate a position by employing logic, researching that position, analyzing and evaluating sources, and demonstrating the ability to utilize a variety of research strategies and techniques. In Idaho, to show mastery in the domain of “*creativity and innovation*,” students must “*demonstrate creative thinking, construct knowledge, and use information and communication technologies to develop innovative products and processes*.” Lastly under this theme were general knowledge-based outcome domains like “*history, geography, economics, civics*,” “*English*,” and “*global competency*.” The outcomes under these domains focused on applied knowledge and transferable skills. For example, under the domain of “*English*” for the state of Virginia, one outcome is “*Communication: Speaking*,” which requires students to not only utilize correct grammar, but also exhibit higher level rhetorical knowledge and skills.

Career Education also emerged as an outcome domain theme. Domains under this theme included “*career education*,” “*career planning*,” “*career ready practices*,” and “*employability*.” Some of the domains overlapped with additional categories, especially as those domains related to personal/social development, (i.e., the domains of “*community and career skills*” and “*personal and workplace skills*”). Outcomes falling under these domains were sometimes culled from states’ 21st Century Skills, which encourage students’ career readiness for today’s workforce. For example, Iowa’s 21st Century Skills include the domain of “*employability*,” which encompasses the following three outcomes: “*communicate and work productively with others, incorporating different perspectives and cross cultural understanding, to increase innovation and the quality of work; adapt to various roles and responsibilities and work flexibly in climates of ambiguity and changing priorities; and, demonstrate initiative and self-*

direction through high achievement and lifelong learning while exploring the ways individual talents and skills can be used for productive outcomes in personal and professional life.” Other domains were comprised of broader academic outcomes, but with a concentration on career education, such as the domain of *“community and career skills”* from the state of Indiana. The outcome for this domain states that *“students will utilize community and career leadership skills in an organizational setting.”*

Another emergent theme from the review of non-academic state DOE was Culture, Family, and Environment. For two states (Alaska and South Dakota), outcome domains under this theme related to understanding Native populations. Alaska’s Standards for Culturally Responsive Schools, for example, contain the following outcome domains: *“heritage/tradition, skills/knowledge, participation, engagement, and awareness.”* Under the domain of *“heritage/tradition,”* *“culturally-knowledgeable students”* are expected to be *“well grounded in the cultural heritage and traditions of their community.”* Other domains for this theme were typically rooted in the role of the family in everyday life as well as the external/internal influences which affect health outcomes. An example is found in Arkansas’ *“family dynamics”* domain which includes social emotional outcomes such as: *“demonstrate respectful and caring relationships in the family, workplace, and community”* and *“apply strategies to improve self-awareness through the assessment of personal characteristics, personal appearance, and personal values and goals.”* Washington, D.C.’s Health Education Standards’ *“family and cultural influences”* domain is illustrative of those outcomes that focus on family/culture as an external influence on health: *“Students demonstrate the ability to analyze the influence of family, culture, media, and technology on health and health behaviors.”* Two states’ domains focused on the natural environment and its influence on and reciprocal relationships with humans. For example, for Colorado, their *“Earth Science”* domain not only includes academic/knowledge-based outcomes, but also requires students to *“describe how humans are dependent on the diversity of resources provided by Earth and Sun.”* Likewise, Alabama’s Health Education program includes the domain of *“environmental health”* with indicators such as *“identify ways schools encourage a healthy environment; recognize environmental hazards”* and *“describe practices that protect the environment and control disease.”*

The final theme to emerge from a scan of DOE-level, non-academic outcomes is Physical Education/Activity. Domains under this theme include *“physical education,” “physical and personal wellness,”* and *“movement competence and understanding.”* Arizona’s Physical Education Standards offers examples of *“physically literate”* students: *“The physically literate individual exhibits responsible personal and social behavior that respects self and others. Includes: personal responsibility, accepting feedback, working with others, rules and fair play, and safety.”* Even the Physical Education/Activity domains were typically reflective of developing social emotional skills, which are apparent in Arizona’s aforementioned stated standard, as well New Mexico’s Content Standard 6 which explains that students will demonstrate interpersonal skills through *“understanding and respect for differences among people in physical activity settings.”*

Literature Scan

PPRC initiated a literature review to investigate various examples of how GPRA standards have been integrated with the unique socio-cultural and educational needs of Indigenous populations. This preliminary literature search focused on four primary domains of research including (1) documented qualitative and quantitative reports reporting standards within Native communities, (2) the operationalization and measurement of identity formation, (3) the operationalization and measurement of community belongingness, and (4) a review of cultural adaptations in evidenced-based social and psychological intervention practices. A brief description of each of these literature domains is provided below.

Qualitative and quantitative standards within Native communities

PPRC reviewed reporting rubrics and outcome assessments from a variety of Alaska Native, Asian American, Native American, and Pacific Islander Serving Institutions, including tribal colleges, in order to identify exemplars of existent GPRA reporting standards that also explicitly or implicitly reference Indigenous cultures. The search yielded a variety of qualitative and quantitative measures to interpret outcomes in Indigenous communities (Comey, 2013; Miller, Wills and Scanlan, 2013). The preponderance of results in this category used frequency distributions and percentage indicators to assess the implementation and summative outcomes associated with specific programs. Reporting standards from the *Te whakato i nga uara me nga wairo* (Exploring shared values), *Learning te reo Maori*, a facet of The New Zealand Curriculum, were also included in the review.

Identity formation

In order to provide a more comprehensive analysis of culturally relevant variables that may also align with federal reporting standards, PPRC examined literature related to the significance, operationalization and measurement of identity formation, both within an individual and a cultural context. The review elucidated the relevance of identity to advantageous psycho-social adjustment (Becht et al. 2016) and also provided empirical assessments that correlated adolescent identity formation with overall well-being (Luyckx & Robitschek, 2014). PPRC also investigated psychological assessments that measured identity development in adolescence (Goth et al., 2012) and identity as a construct of ethnicity (Ponterotto, Gretchen, Utsey, Stracuzzi & Saya, 2003). PPRC additionally included clinical psychology assessment measures of identity and self-esteem in order to provide a more comprehensive review of ways that this construct has been defined in various fields of literature. Empirical findings in this body of clinical literature demonstrate that variables such as identity and self-esteem influence individual's affective stability (Winter et al., 2017; Zeigler-Hill & Abraham, 2006; Clarke, 2002). In addition to identity influencing emotional stability and resilience, research has demonstrated that identity correlates with academic achievement (Chavous et al., 2003; Fuligni, Witkow & Garcia, 2005; Oyserman, Harrison & Bybee, 2001).

Community belonging

PPRC's review of literature related to community variables such as "sense of belonging" indicated that there have been numerous attempts to operationalize and measure this construct. PPRC examined aspects of school belonging and 'connectedness' in Native communities (Covarrubias & Fryberg, 2015; Mohatt, Henry, Fok, Burke and Allen, 2011) as well as how parenting values are influenced by ethnic and cultural environments (Forehand & Kotchick, 2016). PPRC additionally examined indicators of community readiness as a means of understanding the complexity and variety of definitions that apply to various interpretations of "community" (Chilenski, Greenberg & Feinberg, 2007). While a range of definitions for "community" exist, experiences of community and belonging have been shown to correlate with improved health (Mohatt et al., 2011; Aanes, Mittelmark & Hetland, 2010; Cohen & Janicki-Deverts, 2009; Sarche and Spicer, 2008; Hale, Hannum & Espelage, 2005; Hawkins, Cummins, and Marlatt, 2004), emotional well-being (Albanesi, Cicognani & Zani, 2007; Cohen, 2006; Hill, 2006; Osterman, 2000) and academic performance (Goodenow, 1993; Henderson & Mapp, 2002; Pittman & Richmond, 2007; Walton & Cohen, 2011; Hazel and Mohatt, 2001). In turn, notions of community have relevance to a variety of domains in health and education.

Cultural adaptations

Finally, to understand how a variety of organizations and interventions created a synergy between empirically reliable measurement constructs and culturally-valued outcomes, PPRC accessed literature related to cultural adaptations in current evidenced-based practices (Barrera & Castro, 2006; Barrera et al., 2013; Bernal et al. 2009; Castro et al. 2004). This aspect of the literature review was designed to provide concepts, designs and possible working models about how outcome reporting standards may be integrated with the Native values in culturally-responsible fashion. Research has repeatedly illustrated that culturally relevant programs and interventions enhance program effectiveness, fidelity and impact (Castro, Barrera & Martinez, 2004; Griner & Smith, 2006).

Question 2. What insights, preferences and priorities do Native Hawaiian education programs and the broader community offer for developing new or altered GPRA standards?

In the first round of data collection for the GPRA Project, PPRC engaged stakeholders across Hawai'i via community listening sessions, electronic survey, and phone interviews to learn about the kinds of outcome measures NHEP-funded education programs/initiatives should be able to use to demonstrate program and student success. Responses were synthesized from these three data sources to understand the experiences and input of the community.

- **Community Listening Sessions:** What should Native Hawaiian students be able to know, do, or value to prove that they are learning, growing and achieving?
- **Community Survey:** Please share up to 3 Hawaiian behaviors, cultural values, knowledge and practices/skills that are likely to help Native Hawaiian students learn, grow and achieve academically?
- **Phone Survey:** Can you give any examples of Hawaiian cultural behaviors, values, knowledge, or skills you think are likely to help Native Hawaiian students achieve in school?

Outcomes data gathered from the Common Indicators and Systems Framework (CISF) project were also integrated with the data collected from the aforementioned activities to supplement community opinion. The CISF outcomes data has been collected from program stakeholder interviews, surveys and working group activities, which reveal the kinds of culturally relevant outcome measures they either use or wish to use when measuring the learning and successes of their participants.

On average, community stakeholders agreed that culturally relevant measures should be used by education programs to assess the learning, growth and/or achievement of Native Hawaiian students.

When community stakeholders were asked what they thought was most important for Native Hawaiian students to be able to know, do, and/or value to demonstrate their learning, growth, and success, they most frequently identified

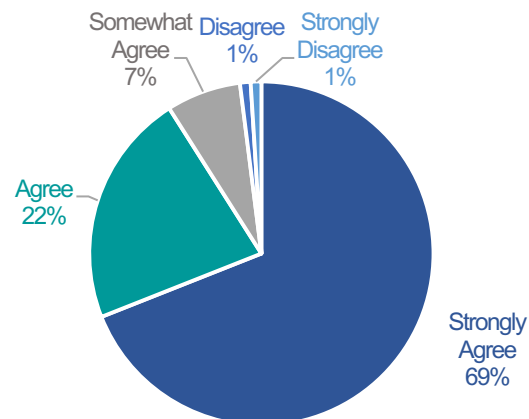


Figure 2. Agreement Levels about the Importance of Culturally Relevant Measures. Source: GPRA Feedback Survey (N=78).

outcomes related to connection to place and ‘āina (30%). This domain was qualified as mālama ‘āina, the desire to care for and create sustainable environments (food, health, community planning, governance), knowledge of family lineage/genealogy, knowledge of hometown, island and Hawai‘i history (e.g. significant events, landmarks, people) and geography, a sense of responsibility for community, and a feeling of connection to the past.

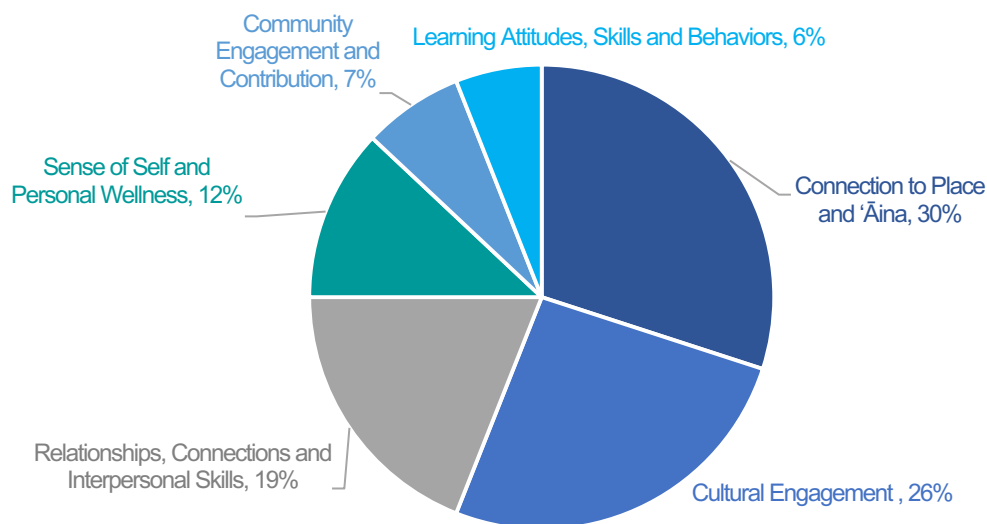


Figure 3. Culturally-Relevant Student Outcome Domains. Source: Community Listening Sessions, Stakeholder Survey, CISF Project Stakeholder Data (N=261).

Community stakeholders identified cultural engagement (26%) outcomes as next most important for measuring Native Hawaiian student learning, growth, and success. Descriptions and examples related to understanding and practicing Hawaiian values (e.g. aloha, kuleana, mālama ‘āina, mālama kai, a’o, nā mea waiwai) in daily life (school, working environment, etc.) were offered, as was practicing Hawaiian language and oral traditions (oli, mele, mo’olelo). Outcomes that measure relationships, connections, and interpersonal skills (19%) also emerged as important for community stakeholders. According to them, Native Hawaiian students should demonstrate care and respect for others (including peers, ‘ohana and kūpuna; demonstration of lōkahi), an understanding of complex and reciprocal relationships, and an understanding of their responsibility to ‘āina, community, and ‘ohana. They should also show an appreciation for symbiotic relationships. Additional outcomes measures under this domain included the ability to empathize, build trust, lead, communicate, collaborate, and interact to better oneself and others.

The category sense of self and personal wellness (12%) describes outcomes focused on demonstrations of self-awareness and reflexivity, valuing the self, knowing their purpose, expressions of positive self-concept and pride in where they come from. This category also indexes student self-efficacy around cultural traditions and life skills and practicing healthy lifestyle habits. Community stakeholders also

referenced community engagement and contribution (7%) as an important domain of measurement. Native Hawaiian learners should be assessed for demonstrations of care for community (e.g. community-minded, service-oriented), giving time to community (e.g. teach, engage kūpuna), leading within their communities, in addition to their intent to return to their communities and their general sense of responsibility toward their communities (mindfulness of values, needs and welfare of others).

Finally, community stakeholders thought that outcomes related to learning attitudes, skills, and behaviors (6%) are important for measuring Native Hawaiian student learning, growth and achievement. This means students should be assessed by the extent to which they share knowledge and understanding with others, strive for knowledge and understanding, and value and seek excellence. They should also be assessed according to their ability to apply learning in new contexts, observe and analyze, and engage in the classroom.

Furthermore, community members were asked in the GPRA Feedback Survey to rate the importance of attributes contained in the CISF matrix for demonstrations of Native Hawaiian student learning, growth and achievement.

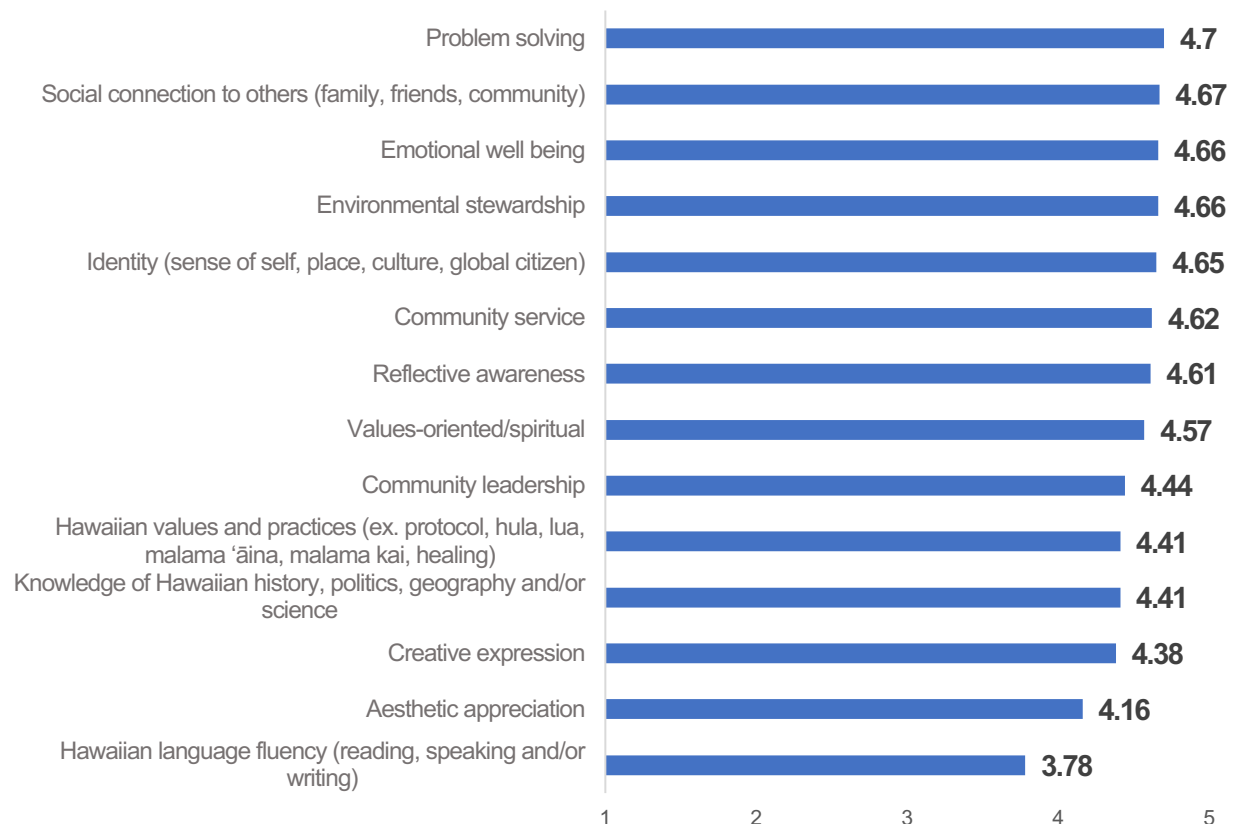


Figure 4. Culturally-Relevant Outcome Domains Rated by Importance for Native Hawaiian Learning, Growth and Success (Developed from NHEC CISF Matrix). N=78. Source: GPRA Feedback Survey. Scale: 1=Not at all Important; 2=Slightly Important; 3=Moderately Important; 4=Very Important; 5=Extremely Important.

Respondents evaluated that problem solving, social connection to others, emotional well-being, environmental stewardship, and sense of identity were most important, followed closely by community service, reflective awareness and being values-oriented/spiritual. These attributes were ranked between “Extremely Important” and “Very Important” on a 5-point scale (4.7-4.57). The least important attribute were Hawaiian language fluency, which ranked between “Very Important” and “Moderately Important” (3.78).

It is clear from community input that culturally relevant outcomes are considered important for measuring the learning, growth, achievement and success of Native Hawaiian students. Community responses to questions about particular outcome domains and types, as well as specific examples offered, show that while it is important that students demonstrate cultural knowledge and values, it is also essential that they learn to procure healthy relationships with others (community, ‘ohana, peers, ‘āina) as well as themselves (self-esteem, cultural identity) to succeed educationally.

Question 3. What new or altered, culturally aligned, and GRPA appropriate student outcome measures can be recommended based on extant data review and feedback from the community?

Upon reviewing community input on culturally-congruent outcome measures for potential GPRA adoption and examining those outcomes against extant data collected on non-achievement-based, non-culture-based outcomes, it is PPRC's recommendation that the NHEC pursue 'social emotional learning' (SEL) as the focus of any new GPRA standard proposed to the USDOEd and OMB. The language for the GPRA standard may read as follows:

Student: Native Hawaiian students in programs served by the NHEP demonstrate social and emotional competencies as measured by one or more outcome indicators recognized by IES What Works Clearinghouse.

Two working definitions of SEL are provided below, one from the National Conference of State Legislatures (NCSL), which demonstrates how it is potentially highly compatible with the learning goals, values and behaviors associated with culturally relevant education for Native Hawaiians and other Indigenous groups. The second definition of SEL is attributable to the Collaborative for Academic, Social and Emotional Learning (CASEL), a well-established authority on and long-time advocate for the educational and holistic benefits of SEL.

National Conference of State Legislatures (NCSL): Social and emotional learning (SEL) refers to a wide range of skills, attitudes, and behaviors that can affect a student's success in school and life. Critical thinking, managing emotions, working through conflicts, decision making, and team work—all of these are the kind of skills that are not necessarily measured by tests but which round out a student's education and impact his/her academic success, employability, self-esteem, relationships, as well as civic and community engagement.

Collaborative for Academic, Social and Emotional Learning (CASEL): Social and emotional learning (SEL) is the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions.

SEL programs and interventions share an educational aim to prepare children to be responsible, productive, caring, and engaged citizens (Edutopia, 2018). The basic tenets of SEL are operationalized in CASEL's Framework for Systemic Social and Emotional Learning (Cefai & Cavioni, 2014; CASEL, 2018b; Oberle, Domitrovich, Meyers & Weissberg, 2016). The framework identifies five core competencies that are designed to "educate hearts, inspire minds, and help people navigate the world more effectively" (CASEL, 2018a).

The core competencies outlined by CASEL include (1) self-awareness, (2) self-management, (3) social awareness, (4) relationship skills and (5) responsible decision making. IES has also documented the benefits of SEL in early childhood and has recently identified the characteristics of SEL interventions that are effective within school contexts (O’Conner, De Feyter, Carr, Luo & Romm, 2017). The National Research Council (2012) has additionally recognized the cognitive, intrapersonal and interpersonal competencies that define a set of 21st Century Skills that enhance education, work and health. For a list of component parts of each of these interventions, please see the table below:

GPRA Standard, Social and Emotional Learning

Student: Native Hawaiian students in programs served by the NHEP demonstrate social and emotional learning competencies as measured by one or more outcome indicators identified by IES What Works Clearinghouse.

Domains of Measurement (IES WWC)	Domains of Measurement (CASEL)	Domains of Measurement (21 st Century Skills)
<p>Pro-social skills, values and concerns: Conflict resolution, helpfulness; democratic values; empathy; enjoyment of helping others learn; concern for others</p> <p>Personal attitudes, motives and feelings: Self-esteem; self-efficacy; sense of autonomy; altruism; managing responsibility (self-control, time management); being honest with self (honesty, integrity, self-appraisal); continuous self improvement (goal setting, problem solving, courage to try new things, persistence)</p> <p>Sense of classroom community: Sense of classroom cohesion; care for classmates; acceptance of outgroups</p>	<p>Self-awareness: Ability to recognize one’s emotions, strengths, limitations and their effects on behavior</p> <p>Self-management: Regulate emotions and behaviors (e.g. setting and achieving goals, perseverance and managing negative emotions)</p> <p>Social Awareness: Take others’ perspectives/empathy (including those with diverse backgrounds and to understand social and ethical norms of behavior)</p> <p>Relationship Skills: Develop healthy, meaningful relationships with others (listening, cooperating, seeking and offering help, resolving conflicts peacefully)</p> <p>Responsible Decision Making: Make ethical behavior choices based on ethical standards and social norms; evaluation of the effects on others</p>	<p>Cognitive: Planning, reasoning, problem-solving, decision-making, analysis, mental flexibility, self-regulation, attention, attributions</p> <p>Interpersonal: Empathy, teamwork, social awareness, collaboration, communication, social intelligence</p> <p>Intrapersonal: Mastery orientation, grit, conscientiousness, values, motivation, self-efficacy, perseverance</p>

Culture-Based Domains of Equivalency (Hawai’i-based, Community Data)

Relationships, Connections and Interpersonal Skills: Demonstrate care and respect for others (including peers, ohana and kupuna; demonstration of lokahi); Demonstrate understanding of complex and reciprocal relationships; Appreciation for symbiotic relationships; Empathy; Ability to build trust; Ability to lead for group betterment; Ability to communicate; Ability to collaborate; Understand their connection to/responsibility for ‘āina, community and ‘ohana; Interact for the betterment of self and others

Community Engagement and Contribution: Demonstrate care for community (e.g. community-minded, service-oriented); Give time to community (e.g. teach, engage with kupuna); Leadership within communities (to manifest cultural knowledge); Intent to return to communities; Sense of responsibility (mindfulness of the values, needs and welfare of others)

Connection to Place and ‘Āina: Translate learning to create more sustainable environments; Knowledge of their families, towns, island, Hawai’i

Cultural Engagement: Understand and practice Hawaiian values (e.g. aloha, kuleana, malama ‘āina, malama kai, a’o, nā mea waiwai) in daily life (school, working environment, etc.)

Learning Attitudes, Skills and Behaviors: Share knowledge and understanding with others; Strive for knowledge and understanding; Apply learning in new contexts; Ability to observe and analyze; Engagement in classroom; Value excellence

Sense of Self and Personal Wellness: Value the self; Sense of purpose; Positive-self-concept; Self-awareness and reflexivity; Pride in who they are where they come from; Self-efficacy around cultural traditions; Self-efficacy around life skills; Practice healthy lifestyle habits

Current research on SEL has provided prodigious evidence regarding the benefits and effectiveness of interventions that promote understanding of self and relationship with others. Durlak, Weissberg, Dymnicki, Taylor & Schellinger (2011) presented findings from a meta-analysis of 213 school-based, universal social and emotional learning programs involving 270,034 kindergarten through high school students. The authors reported that, compared to controls, participants in social and emotional learning programs demonstrated significantly improved social and emotional skills, attitudes, behavior, and academic performance that reflected an 11-percentile point increase in achievement. Recently, new findings from a subsequent meta-analysis of 82 different interventions involving more than 97,000 students from kindergarten to high school detailed outcomes from six months to 18 years after the programs ended (Taylor, Oberle, Durlak & Weissberg, 2017). Taylor et al. (2017) reported that students that had participated in SEL programs scored an average of 13 percentile points higher than non-SEL students. The authors also noted that conduct problems, emotional distress and drug use were all significantly lower for students partaking in SEL programming.

In another line of inquiry, Belfield, Bowden, Klapp, Levin, Shand & Zander (2015) conducted a benefit-cost analysis in order to determine whether SEL interventions offer high economic returns as educational investments. Belfield et al. (2015, p.5) concluded that, “on average, for every dollar invested equally across the six SEL interventions, there is a return of eleven dollars, a substantial economic return.”

The empirical evidence illustrating the significant benefits of SEL programs is galvanizing efforts to explicitly include these competencies in more aspects of education. For example, recent congressional support for SEL includes grants and teacher training in the reauthorization of the Elementary and Secondary Education Act (ESSA), which was originally raised via H.R. 2437, the Academic, Social, and Emotional Learning Act of 2011 (112th Congress). While ESSA does not overtly discuss social emotional learning (SEL), the legislation does open the door for the inclusion of social-emotional components in student learning and growth (Grant et al., 2017). Moreover, a burgeoning number of those in the education community are agreeing on the importance of social emotional learning (SEL) for student success in school and beyond (Gayl, 2017). For example, the American Institutes for Research (AIR, 2018) recently published a report identifying the congruence between Every Student Succeeds Act (ESSA) standards and empirically-supported SEL programs.

At the federal level, CASEL cites two important bills from 2017, which help to promote SEL under ESSA. The first, *H.R. 1864 – Chronic Absenteeism Reduction Act*, looks at student chronic absenteeism, which, according to CASEL, may be employed as an “indicator of school improvement under ESSA.” The other bill, *H.R. 2544 – Teacher Health and Wellness Act*, directs the National Institutes of Health to carry out a five year study on reducing teacher stress and increasing teacher retention and well-being.

In examining how SEL is being addressed within ESSA at the state-level, examples can be found in Colorado, Kansas, and Pennsylvania (Dunham, 2018). For Colorado, SEL has been incorporated into standards for health and physical education. The Colorado Achievement Plan for Kids (CAP4K) seeks to educate children holistically and address “social and emotional competencies such as 21st century skills, critical-thinking, problem-solving, communication, collaboration, social and cultural awareness, initiative, self-direction, and character” (Dunham, 2018). Among other efforts to bolster SEL at the state-level, the Colorado Department of Education is deliberating the incorporation of SEL assessments into ESSA’s “other indicator” requirement, alongside workforce readiness and school climate measures. Kansas is also incorporating aspects of SEL into their ESSA plan which utilizes SEL as one of their “five key outcomes for measuring progress” (Dunham, 2018). Lastly, Pennsylvania has devised specific SEL standards and is working with CASEL in the Collaborating States Initiative. SEL is identified as an “overarching goal” in Pennsylvania’s ESSA plan and has been included in their career readiness programs.

ESSA allows the use of federal funds only if the SEL interventions are evidence-based (Grant et al., 2017). This evidence review of SEL interventions, which drew conclusions from an extensive review of ESSA, found that Titles I, II, and IV funding streams may be used to fund SEL initiatives. In the full report, the authors identify 60 evidence-based interventions that meet ESSA’s stipulations. For those considering incorporating SEL into their ESSA plans, Gayl (2017) provides five strategies for success: (1) articulate a well-rounded vision of student success; (2) provide professional development to improve educator SEL capacity; (3) identify evidence-based SEL interventions as a school improvement strategy; (4) leverage Title IV grants to implement SEL strategies; and (5) make data related to SEL transparent to the public. These five strategies ensure that policymakers devise, implement, fund, and evaluate programs that successfully meet the holistic developmental needs of students, including those related to SEL.

In addition to the numerous individual, social and economic benefits bestowed by social and emotional programming, the strategy of the model is, in its essence, culturally relevant. The foundation SEL reflects the importance of the student not only within the school context, but within the context of their families, communities, future workplaces and the changing global environment around them (Elias, 2006). In order to improve participants’ well-being and enhance their contributions as a citizen, interventions must resonate with the meanings and values of the local community. This is a key component to creating sustainable skills and practices that are nourished by social and emotional understanding.

SEL houses a category of student learning outcomes that align well to the culturally-oriented outcomes that were proposed by Hawai’i communities during the data collection phase of this project. The majority of outcomes identified by Hawai’i communities converged around three domains: (1) Relationships and Connections; (2) Culture-based Knowledge, Values and Behaviors; and (3) Learning Attitudes, Behaviors and Skills. These three domains share common conceptual ground with SEL domains: (1) Interpersonal Values, Behaviors and Skills; (2) Intrapersonal Values, Behaviors and Skills;

and (3) Cognitive Skills. These domains were constructed by integrating SEL outcome domains developed by CASEL, IES, and the National Research Council. Integrating these domains enabled a more inclusive approach to classifying all outcomes data, and best organized the culture-based outcomes identified by community stakeholders during the data collection process.

Table 3. Side-by-side comparison of community input and SEL outcomes categories

Community Input	Social Emotional Learning
<p>Culture-based Knowledge, Values and Behaviors <i>Sense of self and personal wellness; Cultural engagement; Learning attitudes, skills, behaviors</i></p> <ul style="list-style-type: none"> • Self-efficacy (cultural traditions; life skills) • Pride in who they are where they come from • Value the self • Positive self-concept/self-confidence • Self-awareness and reflexivity • Sense of purpose • Practice healthy lifestyle habits • Strive for knowledge and understanding • Value and strive for excellence • Understand and practice Hawaiian values in daily life 	<p>Interpersonal Values, Behaviors and Skills</p> <ul style="list-style-type: none"> • Self-efficacy • Self esteem • Conscientiousness • Perseverance • Ethical decision-making • Self-awareness • Honesty • Continuous self-improvement • Courage
<p>Relationships and Connections <i>Connection to place, and ‘āina; Relationships and intrapersonal skills; Community engagement and contribution; Learning attitudes, skills, behaviors</i></p> <ul style="list-style-type: none"> • Empathy • Ability to communicate • Ability to lead for group betterment • Ability to collaborate • Ability to build trust • Sense of responsibility (mindfulness of the values, needs and welfare of others) • Demonstrate care and respect for others (including peers, ‘ohana and kūpuna; community-minded, service-oriented) • Share knowledge and understanding with others • Understand their connection to/responsibility for ‘āina, community and ‘ohana • Give time to community (e.g. teach) • Appreciate symbiotic relationships 	<p>Intrapersonal Values, Behaviors and Skills</p> <ul style="list-style-type: none"> • Conflict management • Empathy • Team work • Communication • Collaboration • Social awareness • Helpfulness/Joy of Helping Others • Concern for others • Democratic values • Acceptance of others

Community Input	Social Emotional Learning
Relationships and Connections (Continued) <ul style="list-style-type: none"> • Demonstrate understanding of complex and reciprocal relationships • Leadership within communities (to manifest cultural knowledge) • Intent to return to communities 	
Learning Attitudes, Skills and Behaviors <ul style="list-style-type: none"> • Ability to observe and analyze • Apply learning in new contexts • Value and strive for excellence • Engagement in the classroom • Reduced disciplinary citations 	Cognitive Skills <ul style="list-style-type: none"> • Problem solving • Planning • Decision-making • Reasoning • Analysis • Mental flexibility • Self-regulation • Attention

The foundational SEL principles identified by PPRC were found to have compelling cultural resonance with Native Hawaiian values and practices, as reported by local community members. PPRC distributed a feedback survey to the same community audiences that gave initial input during the project’s initial data collection phase to ensure that SEL presented viable cultural equivalencies for measuring the learning, growth, success, and achievement of Hawaiian learners. In short, the purpose of the survey was to seek community perspective and approval regarding SEL. It did so by asking community stakeholders to offer perspective on the three meta-level SEL domains and associated outcome measures: (1) intrapersonal values, skills, and behaviors; (2) interpersonal values, skills, and behaviors, motives and feelings; and (3) cognitive skills. Additionally, the survey included Likert-scale items soliciting levels of agreement about the utility, appropriateness, and adoption of SEL for measuring culturally relevant outcomes, and an open response opportunity to offer additional thoughts and opinions about the suitability of SEL for measuring culturally relevant student outcomes.

The response from those who participated in the survey were overwhelmingly positive and in agreement about the appropriateness and utility of drafting a new GPRA outcome around SEL for NHEP grantees. On a 6-point agreement scale, mean response scores registered between 5.45 and 5.85. The survey participants were most in agreement over the statement “social emotional learning is important for all students’ learning, growth, achievement, and success” (5.85), followed by the statement, “demonstrations of social emotional learning are congruent with skills, behaviors, and practices important for the development of our students’ Native Hawaiian viewpoint” (5.71). The lowest scoring statement reads as follows: “I think social emotional learning attributes are useful measures for assessing Native Hawaiian students’ learning, growth, achievement and success” (5.45). Overall, survey

participants agreed-to-strongly agreed (5.5) that they “would recommend the addition of social and emotional learning measures to GPRA”.

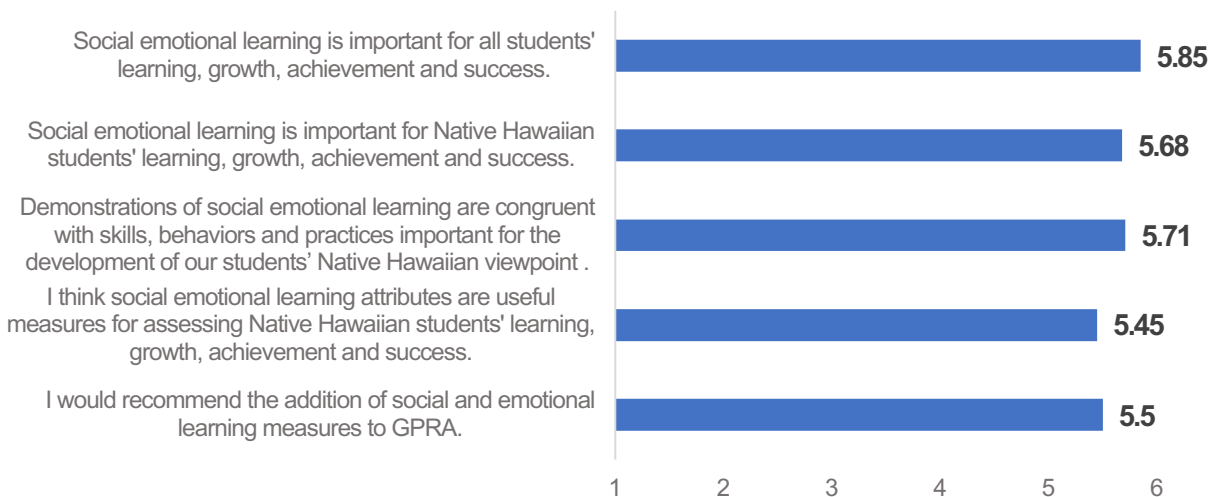


Figure 5. Levels of Agreement on Cultural Relevance and Utility of SEL to Measure Native Hawaiian Learning, Growth and Success. Source: Community Feedback Survey (N=38). Scale: 1=Strongly Disagree; 2=Disagree; 3=Somewhat Disagree; 4=Somewhat Agree; 5=Agree; 6=Strongly Agree

Survey participants offered further confirmation of the ways in which SEL outcome domains share functional ground with culture-based outcome measures. They were able to share examples of outcomes measures in both the classroom and community context that illustrated these equivalencies. For example, one community stakeholder described the use of *ho’oponopono* as an example of the SEL domain of Conflict Resolution:

“Conflict occurs when one is not living and practicing the gifts of *aloha* that reside in each of us. The depth of *aloha* is reflective of all of our accumulated values and extant knowledge of the world, past present and future. Being in conflict with another or with self or with the land stops the flow and power of *aloha* (*Aloha mai, Aloha aku*). *Ho’oponopono* reflects a process of restoring oneself and our relationships with people, places and things, to make right, but to also look for the things that we have in common more than the things that separate us. It is about understanding our collective *kuleana* to people, places and things as well. *Nā Hopena A’o*¹ is a guiding framework for resolving conflict.”

¹ Nā Hopena A’o (“HĀ”) is a framework of outcomes that reflects the Hawai’i Department of Education’s core values and beliefs in action throughout the public educational system of Hawai’i. With a foundation in Hawaiian values, language, culture and history, the HĀ framework is based on 6 core competencies that strengthen a sense of (a) belonging, (b) responsibility, (c) excellence, (d) aloha, (e) total-well-being, and (f) Hawai’i (“BREATH”) in ourselves, students, and others (State of Hawai’i Board of Education Policy E-3).

Another local community member was able to provide a description of specific Hawaiian activities related to the SEL domain of Empathy:

“During our *'awa* ceremony before the start of a school year, students are able to really open up and express their feelings or reflection on orientation, school, future, etc. Through this experience, students are really able to listen to each other...”

Two other community members shared how the social and emotional learning principle of Teamwork is reflected in Native Hawaiian principles:

“*Laulima*, many hands working together makes the work easier; understanding sense of belonging and utilizing ones' gifts for the greater good.”

“Our students demonstrate teamwork through *laulima* as they work together in *lo'i kalo* or through *mālama 'āina* in various *'ahupua'a* to get the tasks done quickly and efficiently.”

The SEL domain of Social Awareness is reflected in a respondents' description of *papakū makawalu*²:

“We must all have a firm foundation and know where we come from as we venture forth to serve our communities with *aloha*. *Makawalu* represents the awareness that is needed to always be observant so that we can correctly interpret the signs and make or take the right action.”

Finally, a community member identified the similarity between *kākou* and the SEL domain of Democratic Values:

“*Kākou* means all of us. Not them over there or us over here, but all of us together.”

²Papakū Makawalu is the ability to categorize and organize our natural world. It is the foundation to understanding, knowing, acknowledging, becoming involved with, and above all else, becoming the experts of the systems of this natural world. Papakū Makawalu connotes the dynamic Hawaiian worldview of the physical, intellectual, and spiritual foundations from which life cycles emerge (Edith Kanaka'ole Foundation).

The following tables illustrate the complete list of culturally equivalent outcome examples offered by the community stakeholders who participated in the feedback process.

Table 4. Intrapersonal Skills, Behaviors and Values - SEL

Outcome Domain	Culturally Aligned Outcome Measures
Conflict Management	Mediates and Facilitates; Teaches/Educates; Conscientious; Communicative; Solutions-oriented; Uses Relationships and Resources; Team Builds Hawaiian Concepts: Ho`oponopono; Mākau kālailai; Mihi; Aloha mai, Aloha aku; Pō'ai pili; Nā waiwai mai nā kūpuna mai;
Empathy	Generous; Proactive/Responsive; Inclusive; Caring; Sincere; Prioritizes Others/Community; Learns From/About Others; Socially Responsible; Mentors; Active Listener; Imaginative; Communicative; Interactive/Engaging; Caring Hawaiian Concepts: Aloha 'ohana, Aloha, Kamali'i, Ho'olono, Mālama; 'Ike pilina
Team Work	Healthy Communicator; Patient; Humble; Leads and Follows; Proactive/Responsive; Socially Responsible; Coordinates; Fulfills Responsibilities and Expectations; Participates in Service Learning; Contributes; Solutions-oriented; Group-oriented; Tolerant of Diversity; Hawaiian Concepts: Alaka'i a hahai; Kōkua; Gather for piko; Laulima, 'Ohana lū'au, A'o aku, a'o mai; 'Ike piko'u
Communication	Uses Diverse Methods and Techniques; Navigates Controversy; Uses Native Language; Conscientious; Diplomatic; Context-driven; Positive Engagement; Analytical; Culturally/Self-confident; Participates in Protocols; Sentimental; Supportive; Flexible; Advocates for Self Hawaiian Concepts: 'Ōlelo Hawai'i, Wala'au, Wehena and panina, Nīnau; 'Ike piko'u
Collaboration	Knows How to Leverage; Reciprocates; Team/Group-oriented; Problem-solves; Trusting; Supportive; Understands Role/Part Hawaiian Concepts: Kōkua aku, Kōkua mai; Laulima; "He wa'a, he moku, he moku, he wa'a"; "'A'ole pau ka 'ike i ka hālau ho'okahi"; 'Ike piko'u
Social Awareness	Listens, Problem-solves; Uses Cultural Knowledge; Vigilant/Circumspect; Seeks Guidance; Community Awareness; Compassionate; Goal-setter; Participates in Community Events/Projects; Community Organizer; Leader; Learns of Others' Needs Hawaiian Concepts: 'Ike Ku'una, Maka'ala, Papakū makawalu, He kaiapuni a'o; Kuleana; 'Ike pilina
Helpfulness/ Joy of Helping Others	Reciprocates; Genuine; Generous; Selfless Giving; Community Service; Volunteers; Mentors; Coordinates/Guides Others; Shows Gratitude Hawaiian Concepts: Kōkua aku, kōkua mai; Mahalo e ke Akua; Laulima
Concern for Others	Anticipates; Apologetic; Forgiving; Caring; Empathetic; Observant; Conscientious; Kind; Advocates for Others; Raises Resources Hawaiian Concepts: Mihi a huikala; Akahai; Lōkahi; 'Olu'olu; Ha'aha'a; Ahonui; He 'ohana kākou; Mālama; 'Ike pilina
Democratic Values	Inclusive; Values Diversity; Engages on Societal Issues; Participates in Public Protest; Facilitates Open Forums; Cooperative; Group-conscious; Populist Hawaiian Concepts: Kākou; 'Ike Ho'okō
Acceptance of Other Groups	Self-Assured/Confident; Inclusive; Values Diversity; Participates in Cultural Exchange; Respect for Difference Hawaiian Concepts: Pa'a kona mau, Aloha; 'Ike honua

Table 5. Interpersonal Skills, Behaviors and Values - SEL

Outcome Domain	Culturally Aligned Indicators
Self-efficacy	Completes a Voyage; Masters Navigation Techniques; Presents/Completes Project; Shares Work with Community; Self-assesses; Teaches Others; Develops Family Skill Hawaiian Concepts: Kūlia i ka nu`u
Self-esteem	Gracious; Cultural/Ancestral Pride; Teaches Others; Self-reflects; Love of Self; Performs/Shares; Culturally Connected Hawaiian Concepts: Mo`okūauhau; Oli; Mele
Conscientiousness	Respect for Difference and Diversity; Situationally Aware; Culturally Connected Hawaiian Concepts: Aloha aku, Aloha mai
Perseverance	Completes School; Sacrifices for Greater Good (group, family); Pursues Old Goals – Sets New Goals; Passes Cultural Assessments; Postsecondary Achievement; Goal-oriented; Completes Projects; Positive Attitude Hawaiian Concepts: Aloha aku, Aloha mai
Ethical Decision Making	Analytical; Values-focused; Nation-conscious Hawaiian Concepts: Aloha; Akahai; Lōkahi; `Olu`olu; Ha`aha`a; Ahonui
Self-Awareness	Conscientious; Self-reflects; Understands Limitations, Strengths, and Weaknesses
Honesty	Well-intentioned; Trustworthy; Values-oriented; Integrity; Politically Conscious
Continuous Self-Improvement/ Mastery Orientation	Critical Thinker; Solutions-oriented; College and Career Planning; Goal-setter; Solutions-oriented; Self-care Hawaiian Concepts: Po`okela, Hakalau
Courage	Performs Community Outreach; Takes on Challenges; Tries New Experiences, Self-exploration/discovery, Hospitable; Political Conviction Hawaiian Concepts: Ikaika; Hakalau; Ho`okipa
Sense of Place (added by PPRC)	Conservation of National Resources; Observation Skills; Appreciation for Community; Appreciation for Nature; Community Involvement, Cares for Land, Understands Processes in Nature Hawaiian Concepts: Kuleana, Develops kilo; Mālama `āina, kua`āina
Sense of Belonging (added by PPRC)	Appreciation for Family/Genealogy; Understands Place/Role in a Group, Practices Protocol, Builds Relationships with Others

Table 6. Cognitive Skills - SEL

Outcome Domain	Culturally Aligned Indicators
Problem-solving	Leader; Group-oriented; Organized; Analytical; Planner; Mediator; Democratic Hawaiian Concepts: Ho`oponopo; Papakū makawalu
Planning	Fiscally Responsible; Leader; Organized; Motivated; Goal-oriented; Collaborative Hawaiian Concepts: Papakū makawalu
Decision-making	Ability to Draw Conclusions; Ability to Lead; Independent; Context-driven
Reasoning	Solution-oriented; Leader; Accurate; Analytical; Values-driven; Intuitive; Intellectual Hawaiian Concepts: Pono
Analysis	Context-aware; Balanced Perspective; Asks Essential Questions; Considerate; Uses Evidence Hawaiian Concepts: Papakū makawalu, Hakalau
Mental Flexibility	Empathetic; Self-empowered; Culturally Resilient Hawaiian Concepts: Papakū makawalu; Hakalau
Self-regulation	Reflective; Prepared; Vigilant; Adaptable; Patient
Attention	Goal-oriented; Persistent; Responsible; Aware of Surroundings; Self-aware; Culturally-connected

Summary and Recommendations

At the request of the NHEC, PPRC implemented a broad, community-based process to derive culturally congruent and empirically-measurable student outcomes for GPRA consideration by the USDOEd and OMB. The GPRA standards under consideration pertain specifically to the NHEP and the measures its grantees are mandated to report on in fulfillment of their funding agreements. This initiative is precipitated by the long-stated need among NHEP grantees that the current GPRA standards are inadequate for measuring the learning, growth, successes, and achievements of Native Hawaiian students. Current standards are largely considered culturally incongruent, thereby substantially limiting the opportunities for programs to meaningfully evaluate their central goals and outcomes.

In developing recommendations for GPRA consideration, the NHEC and PPRC determined it necessary to gather evidence from the Native Hawaiian education community regarding the current existence of, and potential additional need for, culturally-aligned outcome measures. The NHEC and PPRC also understood the emphasis placed on psychometric science and federally recognized research parameters as a means to increase the potential for USDOEd/OMB adoption. In doing so, PPRC set out to (1) engage stakeholders via listening sessions, surveys, and phone interviews to learn of community priorities for the education of Native Hawaiian students; (2) scan research and extant data to identify commonalities and equivalencies between federal and state-level student learning outcomes and culture-based outcomes offered by the community; (3) determine a limited set of student-centered outcomes that link culturally relevant learning to academic growth and achievement; and (4) make outcomes recommendations based on the greatest potential for USDOEd support and communication to OMB.

In completing this research process, PPRC recommended that the NHEC present social and emotional learning (SEL) as the focus of an additional NHEP GPRA standard to the USDOEd for OMB consideration and adoption. This recommendation has been affirmed by stakeholders from within the Native Hawaiian education community, a litany of peer-reviewed scholarship, IES-reviewed research studies, state DOE programs practices, as well as current legislation, such as the Every Student Succeeds Act (ESSA). From a cultural standpoint, SEL outcomes index the values, orientations, behaviors, and skills necessary for students to succeed not only within the school context, but to successfully navigate family, community, future workplace, and global environments/contexts. They open evaluative spaces where personal well-being, social relationships, as well as connections to community, place and 'āina become valid domains of measureable change.

Hawaiian values and practices have served as guiding principles for Kānaka Maoli for innumerable generations. Findings from this project show that the wisdom of the Hawaiian culture is expressed in values and practices that more recently have been identified as SEL competencies. This congruence between Hawaiian value systems and SEL principles reveals the possibility of identifying specific

measures of student success that resonate with the Native Hawaiian community and that simultaneously reflect the rigorous standards of GPRA.

Moving forward, the Council may wish to further pursue and/or assess the merits of SEL for measuring culturally relevant outcome measures within Hawai'i's education community. Presuming this direction, PPRC recommends two potential projects that can either be pursued in isolation or progressively.

- (1) Data Collection Activities. Targeted, in-depth data collection (via site visits, interviews, and focus groups) of current SEL practices and measures in the community, with a focus on NHEP grantees; and/or
- (2) SEL Assessment Development. The formation of community working groups comprised of NHEP grantees tasked with developing culturally relevant assessments that employ SEL measures, which can go on to be adopted and piloted within their programs. These endeavors can be accomplished by coordinated working groups, led by the NHEC, another leading culture-based organization, or an external consultant.

The former may be pursued should the Council wish to garner additional evidence regarding the value and/or prevalence of SEL outcomes among NHEP grantees and other Native Hawaiian education programs. The latter assumes adequate evidence for the need, prevalence, and/or cultural congruence of SEL to Native Hawaiian education outcomes and moves to adapt or construct NHEP assessments around relevant SEL outcome measures. The synergy between SEL constructs and Native Hawaiian values offers a possibility for creating outcome measures that reflect scientific psychometric standards as well as the principles that the Native Hawaiian community deems educationally important to measure.

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