The HCIE study examines the relationship between Hawaiian culture-based educational (CBE) strategies and student outcomes. As part of the study, we asked 600 middle and high school teachers to share their educational strategies with us. We also surveyed students of the same teachers to obtain a better sense of their educational experiences. These data help us understand the range of teaching and learning practices being used across Hawai‘i schools.

Preliminary analyses reveal that students whose teachers use greater amounts of culture-based educational approaches are more likely to report higher rates of cultural knowledge and practice, community attachment and giveback, school engagement, and positive self-concept. This report looks specifically at levels of cultural knowledge and practice among participating students.

WHY DOES CULTURAL KNOWLEDGE AND PRACTICE MATTER?
Researchers have argued for decades that discontinuities between home and school cultures often produce negative effects on students. For indigenous groups specifically, the literature on culturally responsive schooling suggests that greater integration of native beliefs, customs, and practices helps make learning more relevant for students. Cultural knowledge and practice can be assessed in numerous ways. For the purposes of this report, students’ Hawaiian language ability, internalization of Hawaiian values, and their participation in activities that perpetuate Hawaiian culture are used to gauge cultural knowledge and practice overall.

HOW DOES CULTURE-BASED EDUCATION FIT IN?
Hawaiian culture-based education grounds teaching and learning in culturally relevant content, contexts, and assessments, which draw heavily upon ‘ohana (family), ka‘iāulu (community), and ‘ōlelo (Hawaiian language). To better understand the ways in which culture-based educational strategies may influence cultural knowledge and practice, respondents are classified into two groups: students who have at least one teacher who uses the highest levels of culture-based education (High CBE Teachers) and students who do not have any teachers that use high or even moderate levels of culture-based education (Low CBE Teachers).

WHAT ARE THE RESULTS OF THE SURVEY?
When examining cultural knowledge and practice of students, we see that culture-based educational approaches have a significant impact on students’ Hawaiian language ability, internalization of Hawaiian values, and participation in cultural activities. Students of High CBE Teachers tend to score higher in these areas where cultural relevancy and project/place-based learning are more likely to be emphasized.

‘ŌLELO HAWAI‘I (HAWAIIAN LANGUAGE)
Although speaking Hawaiian is often used as an indicator of language ability on its own, there are additional ways of assessing a person’s knowledge and skill. Particularly, a student’s capacity for understanding Hawaiian when it is spoken shows contextual knowledge, and their ability to participate in cultural protocol indicates the degree to which they are able to put their ‘ōlelo Hawai‘i to use. On these survey items, students rated themselves on a 5-point Likert scale ranging from Strongly Agree to Strongly Disagree.

For this 3-item set, students of High CBE Teachers consistently report greater knowledge and familiarity with ‘ōlelo Hawai‘i than those of Low CBE Teachers. The difference in percentage points is considerable, ranging from 59.6 to 64.9. All differences are statistically significant showing a clear positive impact of CBE approaches on Hawaiian language ability and use.
HAWAIIAN VALUES

Individual perception and behavior are often related to shared values and beliefs. Eight survey items correspond to specific Hawaiian values, which represent only a handful of possible choices. Students were asked to rate their agreement with each item on a 5-point Likert scale. Student responses indicate the level to which the values are internalized because they are stated in behavioral terms.

On average, students of High CBE Teachers demonstrate an internalization of Hawaiian values to a greater degree than those of Low CBE Teachers. Figure 2 illustrates the results for select values—lokahi, malama ‘aina, and pono—which characterize the overall differences observed. The gap between student groups for these items is an average of 18.6 percentage points; all differences are statistically significant.

PARTICIPATION IN CULTURAL ACTIVITIES

Students were surveyed about their knowledge and practice of 25 cultural activities. These activities spanned three subcategories: 'aina and kai (e.g., taro farming and ocean food gathering and preparation), mele and mo'olelo (e.g., hula and chanting), and spirituality and relationships (e.g., making offerings or ho'okupu and studying family genealogy).

On average, students of High CBE Teachers believe in or think that 21 of the 25 cultural activities are important; whereas students of Low CBE Teachers feel the same for 15 cultural activities. Additionally, students of High CBE Teachers practice roughly 14 of the cultural activities on average compared to students of Low CBE Teachers who practice about 8 cultural activities.

SUMMARY AND LIMITATIONS

Educators and researchers agree that increasing the continuity between students’ home and school cultures will likely lead to positive educational outcomes. Drawing upon Hawaiian cultural knowledge and practice can help make learning more relevant for students who, regardless of ancestry, share a common connection to Hawai'i. When examining Hawaiian language ability, internalization of Hawaiian values, and participation in cultural activities, students of High CBE Teachers consistently outperform those of Low CBE Teachers. In all cases the differences between these groups are statistically significant. At the same time, these differences may be due to school size or other factors mitigating the influence of CBE use. These limitations will be addressed in future analyses.

A CLOSER LOOK AT THE STUDY

Hawaiian Cultural Influences in Education (HCIE) is a joint research project of Kamehameha Schools, the Hawai'i Department of Education (HiDOE), and Nā Lei Na'auao, an alliance of Hawaiian-focused public charter schools. The goal is to improve student outcomes by sharing best practices of culturally relevant education.

The study also seeks to recognize and measure student outcomes beyond grades or standardized tests. To determine the impact of CBE approaches on student development, a uniquely interlocking set of surveys was developed for school administrators, teachers, students, and parents.

HCIE data include responses from teachers, students, and parents in 62 schools across Hawai'i. Participants represent five islands (Hawai'i, O'ahu, Kaua'i, Maui, and Moloka'i), including conventional public schools, charter schools, and Kamehameha Schools.

For more HCIE information visit www.ksbe.edu/spi/projects.php.

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Endnotes
3 For this report, the sample of ~3,000 students is limited to Native Hawaiian participants in public school settings (conventional public schools, kula kaiapuni, and charter schools) in grades 7–10 in school year 2005–2006 who are matched with at least one participating teacher.
4 The Hawaiian values referenced in the survey include: kuleana (responsibility), mo'okūla'ahau (genealogy), aloha (love), ki'i (standing up against wrong), lokahi (harmony), pono (righteousness), ha'aha'a (modesty), and malama 'āina (caring for the land).